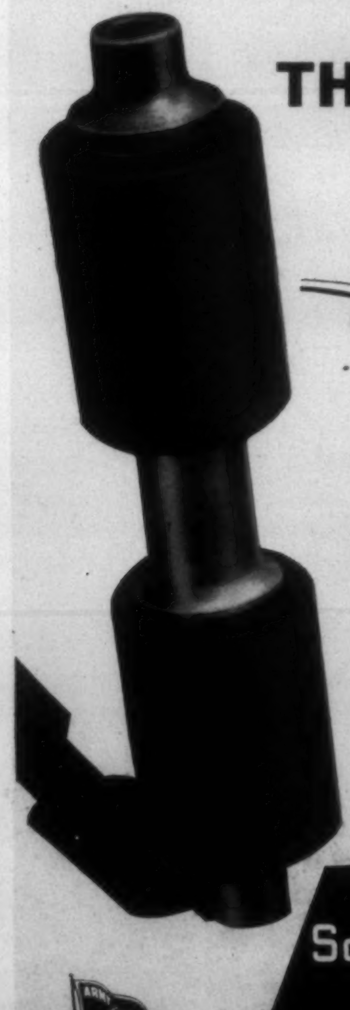
OL. 69 NO. 9

textile bulletin

JANUARY · 1 · 1946

What had to be done in completely revamping a textile mill more than 50 years old, with emphasis on the electrical set-up, is described on Pages 22, 24 and 25 of this issue.



THE SONOCO COT gets the best results from CORK–

The SONOCO Cork Cot features more than just *cork* as a drafting material. In addition, SONOCO features ease of application, positive adherence to rolls, elimination of blisters, and elongation while running.

The exclusive and patented construction of the SONOCO Cot give it these superior characteristics: The seamless gummed cloth inner-lining is both the strengthening and the bonding agent necessary to get the best results from cork.

DON'T WASTE PAPER SAVE WASTE PAPER

SONOCO MAKES EVERYTHING IN PAPER CARRIERS

SONOCO PRODUCTS COMPANY
HARTSVILLE
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DEPENDABLE SOURCE OF SUPPLY

ADVERTISING
NDEX–PAGE 37

15th SOUTHERN TEXTILE EXPOSITION

APRIL 8 to 13, 1946

TEXTILE HALL

GREENVILLE, SOUTH CAROLINA

Two hundred manufacturers of machinery and textile equipment have signed contracts, and will display standard and improved installations, machines, accessories, operating and office supplies, primary and fabricating materials, and parts. The exhibits will be interesting and helpful to manufacturers of yarn and cloth made of cotton, rayon, silk, and wool.

Due to conditions brought about by The War, textile plants desire to make replacements and improve equipment. The representatives of their financial and operating personnel, who attend the Exposition, will see many things which are new and useful.

Committees of citizens have been appointed so that all who attend the Exposition will be able to obtain quarters. Please send applications to "Rooms Committee, Care of Textile Hall Corporation."

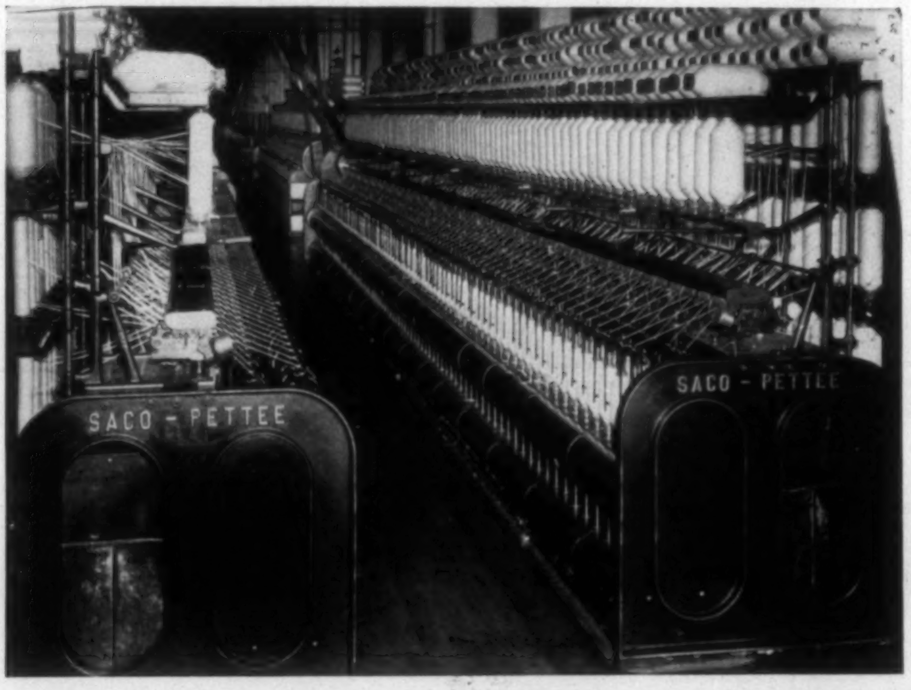
● *Note* This Exposition is for the textile industry. Due to the anticipated large attendance and crowded aisles, it is regretted that the public and children under sixteen years of age cannot be admitted.

Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription $1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897

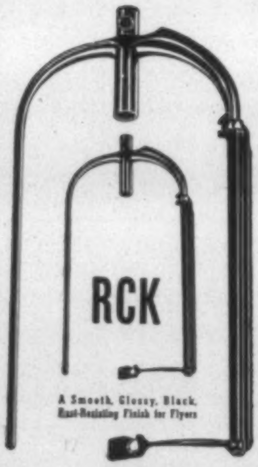
DEVELOPERS OF **RCK** A SMOOTH, GLOSSY, BLACK, RUST-RESISTING FINISH FOR FLYERS

Over 300,000 RCK Treated Flyers from New England to Texas!

The RCK Finish gives flyers a beautiful black color and makes them highly rust-resistant. Since it is a penetration into the metal and is not a build up, there can be no peeling or scaling to give trouble, as is the case in so many other rust-prevention treatments.



A partial view of one card room in the big Monarch Mill, Lockhart, S. C. All their flyers (7,000) have been RCK treated.


RCK
A Smooth, Glossy, Black, Rust-Resisting Finish for Flyers

SKILLFUL REPAIRING UNEXCELLED BALANCING

Whether RCK treated or not, all flyers after being completely repaired are balanced at highest possible running speeds with our
IDEAL BALANCING MACHINE

COMBINATION REBUILDING Assures Precision Performance

If you have us rebuild your flyers and spindles at the same time, you get the benefits of standard size and taper of spindle tops, precision ground so that flyers fit perfectly and run smoothly.

We Furnish Extra Flyers and Spindles Without Charge While Yours are Being Repaired

IDEAL MACHINE SHOPS

BESSEMER CITY, NORTH CAROLINA

22ND YEAR OF CONTINUOUS SERVICE TO TEXTILE MILLS

TIGHT BINDING

This apron does not stretc

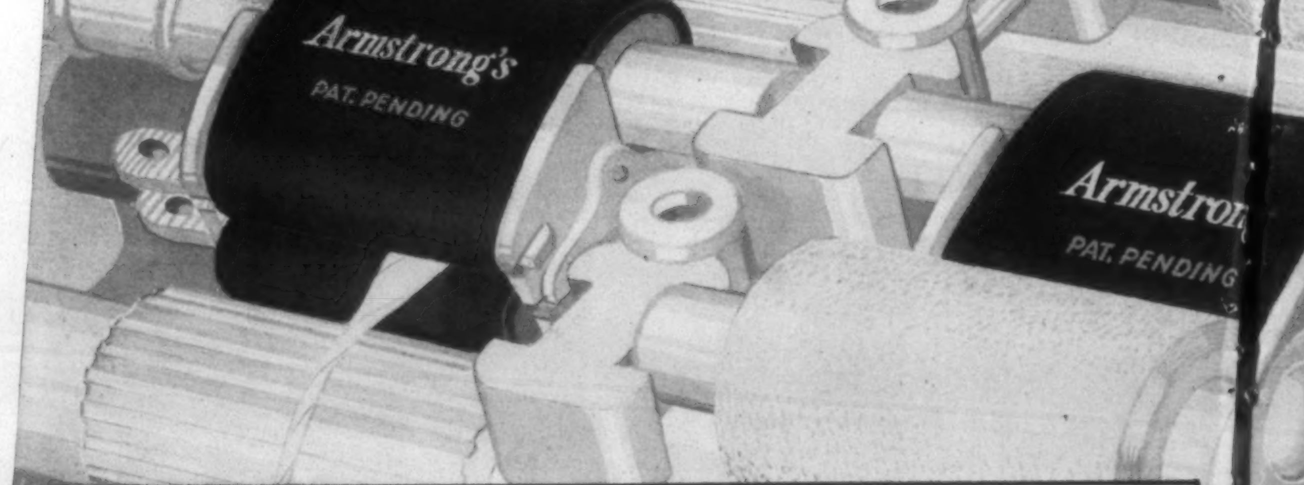
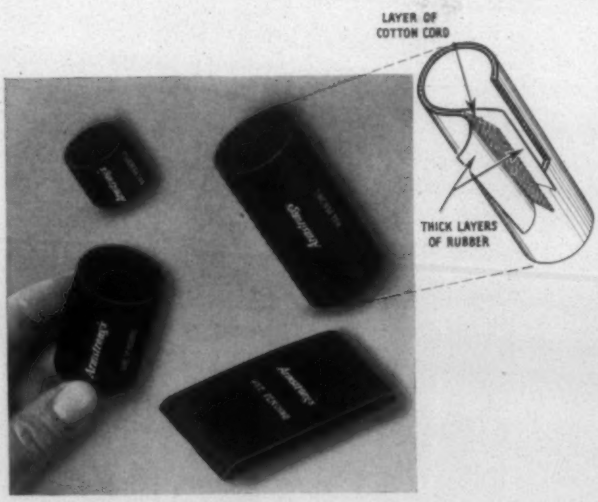


Diagram Shows Why Accotex Aprons Are Non-Stretching



Years of wear won't change dimensions of Accotex Aprons because of their special patented construction shown at left. Besides non-stretching, Accotex Aprons offer these other important operating advantages:

LONG LIFE: Accotex Aprons in continual service for more than three years show little sign of wear.

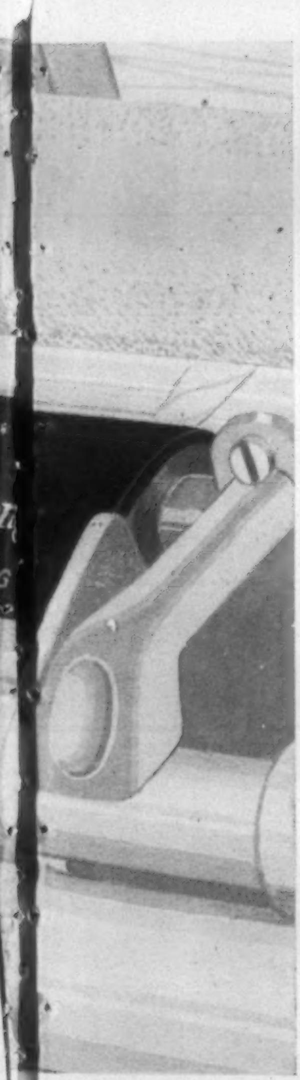
UNIFORMITY: All Accotex Aprons have the same composition throughout, and dimensions of every size are accurate.

CLEAN-RUNNING: Accotex Aprons do not crack or scuff. Thus they assure cleaner-running work and less waste.

REDUCED LAPPING: Accotex Aprons are not affected by temperature or humidity. They perform with a minimum of lapping.

GOOD FRICTION: The efficient "grip" of Accotex Aprons keeps slippage at a minimum.

r “grow” ...drafts more even yarn



You get stronger, more uniform yarn from Armstrong's Accotex Long Draft Aprons because they're reinforced with a cord interliner that prevents stretching . . . keeps tension constant. Even after years of hard service in the mill, an Accotex Apron will still fit snugly on the same form on which it was made in the factory.

Accotex Aprons also give you a tough wearing surface on both the inside and outside of the apron. Two heavy layers of non-oxidizing, highly oil-resistant synthetic rubber enclose the non-stretch interliner. And because Accotex Aprons are seamless, they won't tear or break open during operation. Barring accidents, uniform long life is assured.

For free samples, prices, and complete information on Armstrong's Accotex Aprons, see your Armstrong representative. Or write today to Armstrong Cork Company, Textile Products Dept., 8201 Arch Street, Lancaster, Pa.

Also by the makers of Accotex Aprons

. . . the Accotex Cot

The same kind of specialized research and technical skill that created Accotex Aprons also produced Accotex Cots. These synthetic cots, too, can help you spin more even, better quality yarn. They offer these eight advantages:

1. **LONG SERVICE**—Accotex Cots are tough. And they can be rebuffed 3 or 4 times.
2. **GOOD DRAFTING**—Accotex Cots resist slicking.
3. **REDUCED EYEBROWING**—Resistance to slicking minimizes eyebrowing.
4. **SOLVENT RESISTANCE**—Accotex Cots are not affected adversely by oil, water, dyes, or textile solvents.
5. **SEAMLESS CONSTRUCTION**—Accotex Cots have no seams—can't break open in service to shorten normal life.
6. **QUICK ASSEMBLY**—Accotex Cots are ready glued.
7. **REDUCED LAPPING**—Accotex Cots have little affinity for textile fibers. In addition, they are non-sweating.
8. **GOOD START-UP**—Accotex Cots are non-thermoplastic and resist flattening.

ARMSTRONG'S ACCOTEX APRONS

ACCOTEX COTS • CORK COTS

imparts

Full-Bodied Softness...

**to ALL RAYONS
SYNTHETICS & COTTONS**

PARAMINE

REG. U.S. PAT. OFF.

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MILL MEN have found out about PARAMINE. . . . They know that to specify PARAMINE is to assure a highly desirable, wool-like texture for spun rayons, and an extra-mellow softness for all rayons, synthetics and cottons . . . and mill executives are pleased to find that PARAMINE gives this added sales value without increasing and often lowering finishing costs!

Demonstration or further information furnished at your request. . . .

ARKANSAS CO., INC.
Manufacturers of Industrial Chemicals for over 40 Years
Newark, New Jersey

GUEST EDITORIALS

Safety in War and Peace

THE end of the war brings us all face to face with the need for great readjustment. Businesses have stupendous problems of reconversion. Individuals are faced with new problems, even while they enjoy new privileges. Governments must make drastic changes in policies and practices.

Those responsible for the safety movement are also faced with the necessity for adjusting themselves and their programs to new conditions. The motivating forces of a world at peace differ very greatly from those of a world at war. People will do different kinds of work, will lead different kinds of lives in the years to come, than they have during the years of World War II.

Many are wondering, however, what the place of safety will be in the post-war world. Will interest in safety continue at its present level, will it increase, or will it slacken?

To a very large extent, these questions will be answered by the men and women who make up the sections of the National Safety Council—dealing at firsthand with industrial, traffic, home, school and other phases of safety. If these men and women fully understand what safety can accomplish in a world at peace, and if they pursue their objectives with resourcefulness and vigor, there is no reason, in my judgment, why accident prevention cannot continue to increase in scope and effectiveness.

It is only reasonable to recognize that the end of the war means a less urgent demand for manpower, and possibly somewhat less urgent reasons to conserve that manpower. However, in the final analysis, the war has been a tragic evidence of waste—waste of manpower and of property. The post-war world should be and, I believe, will be ready to listen to and to act upon the recommendations of safety men for the conservation of human and natural resources.

Safety men have always known that accident prevention was good business; that safety and efficiency went hand in hand. That argument will lose none of its force in the post-war world.

The character of industry will change in many respects as we go from war to peace. Certainly a vast increase in construction will occur, sooner or later. Certainly many changes will occur in equipment and processes. All these will require some adaptations of our present programs.

My message to our thousands of section members, therefore, is a very simple one. First, let us hold fast to the enduring principles of safety, never forgetting that it is both humanitarian and utilitarian. Any safety program which ignores either of these basic principles will not achieve maximum success.

On the other hand, let us clearly recognize that, while the basic principles will remain, there will be significant differences in their day-to-day application. Let us be alert to adapt our programs to new needs, and to capitalize on our opportunities. Truly, we all have an important and a significant job to do in the post-war world.—*By N. H. Dearborn, executive vice-president of the National Safety Council.*

Hasten Normalcy's Return

THE war is over, but there is little sign that the government and its multitudes of bureaus are going to be willing to give back to the people the rights and liberties that have been taken from them. A swarm of bureaucrats and government employees that settled down over the nation like a swarm of locusts are unwilling to give up their authority, give up their jobs, and go home to engage in productive effort.

Mr. Truman seems to be determined to out-Roosevelt Roosevelt. He has demanded of the Congress that it pass a full employment bill, the terms of which are so vague and indefinite as to make it impracticable, but which commits this government to furnish every man a job who wants one. He has demanded that the Congress pass a bill that will enable everyone out of work to draw $25 per week for 26 weeks of loafing.

He has demanded that the Congress pass a bill increasing the minimum wage in this country to 65 cents per hour at once, with an increase of five cents per hour over a two-year period, until it reaches a minimum of 75 cents per hour. He insists on this in spite of the fact that wages, everywhere in this nation, are already the highest in the world, which means that the cost of producing things in this country puts us out of competition with other nations, in the markets of the world.

His most recent adventure into socialism is to propose to the Congress a compulsory health insurance system for all persons who work for a living. Mr. Truman has thus added new features to the Roosevelt program for the redistribution of wealth.

The program will undoubtedly make votes for the congressmen and senators from the cities where workers are tightly unionized, who are up for election in 1946. It will unquestionably make votes for the administration in 1948.

The most novel proposal of all is the one which Mr. Truman makes through the Office of Price Administration, and which is that all the costs involved in this legislation can be added to the present cost of producing the things produced in the nation, without any increase in the ceiling prices of those articles.

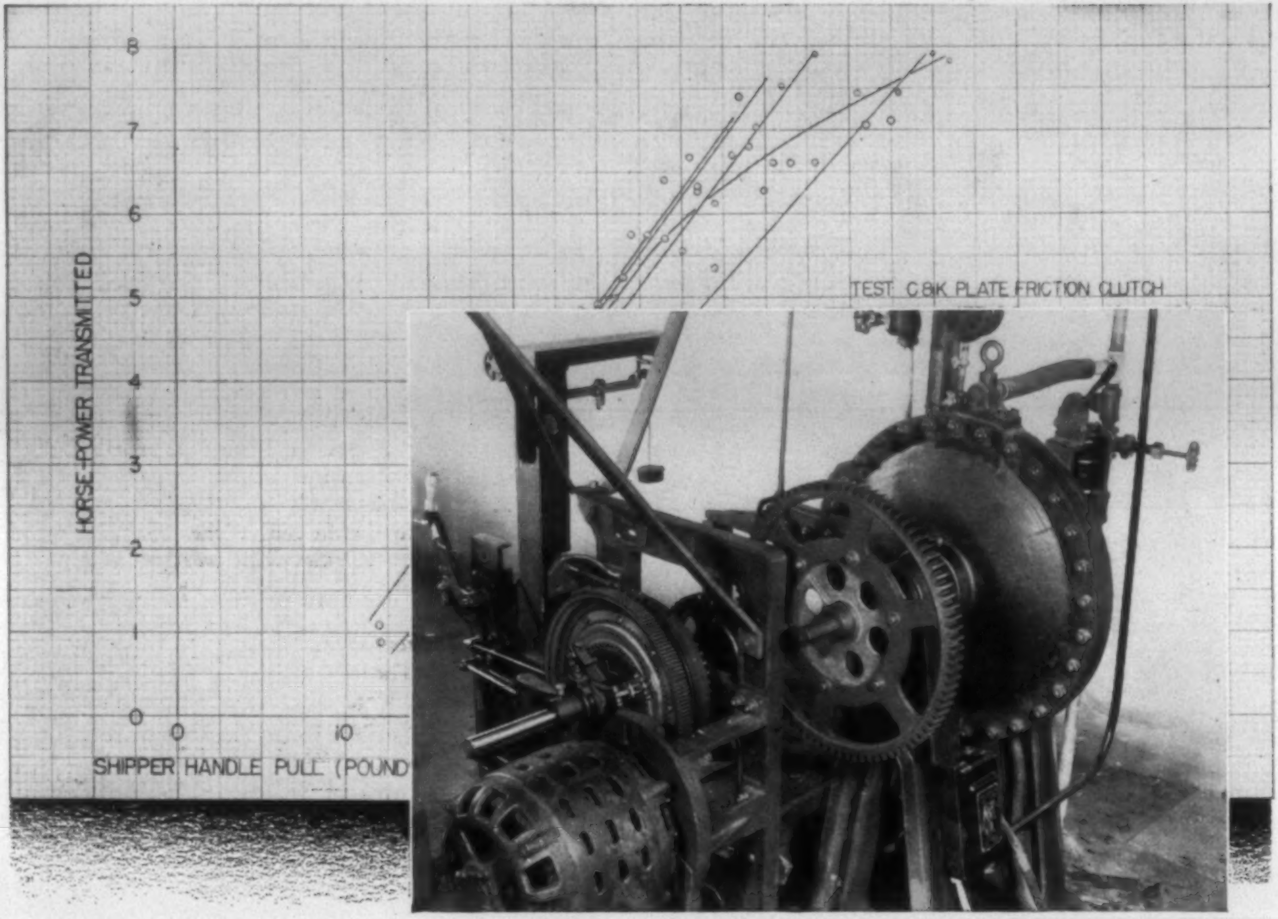
So, the picture Mr. Roosevelt and Mr. Wallace were trying to paint for us in the earlier days, the picture of prosperity through scarcity, has now been completely changed. A new picture is presented.

We now have an unprecedented demand for everything grown, produced, or manufactured in this nation, but a scarcity of all these things.

Production is being hindered and held back by Mr. Truman's proposals, all of which add to the costs of production, because he proposes to see to it that the normal operation of adding these costs to the selling price of the things produced shall not be done. More production is needed, but his program encourages loafing.

Everywhere, business men, shops, factories, and housewives are hunting for people to be usefully employed, but Mr. Truman's program creates a situation where people loaf and draw compensation pay and other gratuities, rather than go to work. The incentive to produce is killed. What a spectacle!

How long will it be before sanity, common sense, and some degree of normalcy will be restored?—*The Macon* (Ga.) *Telegraph.*



WHAT C & K ENGINEERS HAVE LEARNED

from Operational Tests on LOOM-CLUTCHES

This is another of the many continuing studies in C&K's engineering laboratories. *Objective:* To develop a loom-clutch that (1) requires a minimum of physical effort on the part of the operator; (2) will carry instantaneous peak loads without undue slippage and wear; (3) will require the least adjustment and replacement of parts.

So C&K engineers have developed a new type of plate clutch which more than meets these objectives . . . as proven by actual operating tests (such as the dynamometer test set-up shown above). The findings:

(1) Shipper-handle can be operated with the little finger . . . because of the ease with which the 6 geared friction segments engage and disengage. The clutch mechanism is so designed that the slight shipper-handle pull is magnified to a level that is sufficient to carry loads far in excess of those required. This means quick, positive operation, and a smoother-running loom.

←

At left: New C&K Plate Friction Clutch as actually installed on a C&K Loom in daily operation on the testing floor.

(2) Clutch carries instantaneous loads with far less slippage than before, and with far less wear which, over a period of months, can still be measured in no more than thousandths of an inch.

(3) The new clutch operates months longer without adjustment. Banging-off and parts breakage are thereby minimized, loom-fixing cut.

These are known, accomplished facts. So it can be known, *now,* that the new models of C&K looms to be equipped with this new clutch will be easier to operate . . . will operate more continuously . . . and will require less maintenance . . . than any looms yet built.

Crompton & Knowles Loom Works

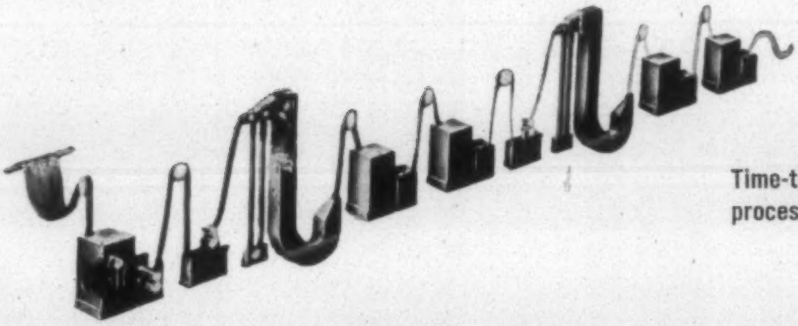
WORCESTER 1, MASSACHUSETTS, U. S. A.
PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA.
Crompton & Knowles Jacquard & Supply Co.
Pawtucket, R. I.

BRIDGING THE GAP
between Today's Knowledge . and Tomorrow's Looms

MORE THAN ~~1000~~ 1300 MILLION YARDS

BLEACHED BETTER—FASTER

WITH DU PONT CONTINUOUS PEROXIDE BLEACH



Time-tested and proved, this economical process is being installed by more and more mills today!

IN THE few years since Du Pont's introduction of the Continuous Peroxide Bleaching System, *more than 1300 million yards* of cloth have been bleached—better, faster, more economically! To many bleachers, these systems have meant rapid, continuous production of goods with a uniform, predetermined bleach, with savings in steam, water, power, chemicals and labor. Developed as a contribution to the textile industry, they're backed by Du Pont Technical Service and never-ending Research.

Whatever your production requirements, a Du Pont system can be designed to meet them. Du Pont Technical Service Men stand ready to help you plan for necessary equipment as supplied by leading manufacturers.

NOW is the time to consider savings, how *you* can make effective use of a Du Pont Continuous Peroxide Bleaching System. Write today for complete, detailed information about these modern systems for speedy, low-cost bleaching. **E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Department, Wilmington 98, Delaware.**

BUY VICTORY BONDS . . . AND HOLD THEM!

DU PONT PEROXIDES

DU PONT
REG. U. S. PAT. OFF

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Today

Your *Standard* GATES VULCO ROPES

Are Giving BETTER SERVICE Than *ANY* V-Belts Ever Built Before!

To meet the needs of our Army's tanks, tractors and self-propelled big guns in combat service, it was necessary to develop V-Belts far superior to any that had ever been built before. Gates developed and built these greatly superior V-BELTS—and here is why this fact is important to you:--

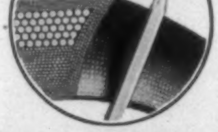
Here is the reason **Every improvement developed by Gates for these Army V-BELTS has been added, day by day, to the quality of the standard Gates Vulco Ropes which have been delivered to you.**

This is one of the very few instances in which improvements developed primarily for military use could be passed on immediately to you. Ordinarily, you would have had to wait. But in the case of Gates V-belts it was clearly recognized that industry simply had to have the best V-belts that could be made in order to maintain the production volume that was essential to winning the war.

That is why Gates has been able to pass on to you, day by day, every V-belt improvement developed for our armed forces during the war—and that is why your Standard Gates Vulco Ropes are today outperforming any V-belts ever built before!

All Gates V-Belts are Built With

The Patented **CONCAVE SIDE**



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GREENVILLE, S. CAROLINA, 108 W. Washington Street BIRMINGHAM 3, ALA., 801-2 Liberty National Life Bldg.

textile bulletin

Vol. 69 January 1, 1946 No. 9

The Continuous Process for Viscose Rayon

From the Forthcoming Book by JOSEPH V. SHERMAN, "The New Fibers"
To be published by D. Van Nostrand Co., Inc., New York City

UNTIL 1938 there had been but two generally accepted methods of producing viscose rayon—the spool system and the pot system. In that year the opening of the Industrial Rayon Corp. plant at Painesville, Ohio, introduced a third and completely revolutionary method—the continuous spinning and processing of viscose yarn. Development work on this process had started in 1932 when a group of Industrial's technicians headed by Hayden B. Kline, then vice-president in charge of plant operations, embarked on a research program to find a new means of producing yarn of a uniformity not obtainable by either the spool or pot system.

The exacting chemical controls of rayon manufacture assured a high degree of uniformity up to the point where viscose coagulated into filaments of yarn. Beyond that point, yarn produced by either the pot or spool system was subjected to all the irregularities and inconsistencies of bulk processing and repeated physical handling of the yarn. The continuous process was developed to permit treatment of individual strands of yarn and to eliminate handling of the yarn as it moved through all of the required processing steps.

An important problem in the company's research program was the need for a means of transporting the yarn through successive processing stages in a manner that would permit the application of processing solutions to individual strands for a sufficient length of time to permit thorough treatment. The early work on this new process was therefore concentrated on a thread advancing reel which could carry yarn across its surface without ever winding on itself or touching any other part of its own length. This reel as ultimately designed is made of two cylindrical cages. These cages are assembled so that the bars of one are between the bars of the other and so that the axes of the cages are inclined with respect to one another. They do not rotate about the same center, though they operate together when rotating. The effect of these cages assembled in this relation is to cause a thread led onto the reel at the back end to advance along the bars in a helical path and drop off at the forward end.

Many types of materials were tested for this reel during the experimental stages. It not only had to resist action of chemicals used in processing yarn but had to be produced to exact tolerances so that the speed of travel of the yarn would not be affected. For the spinning and processing operations a reel of molded plastic was devised; for drying, an aluminum reel of similar construction was produced. Development of the machines on which these reels were to perform their thread advancing function also presented many challenging problems to combine the necessary spinning, processing and drying stages. By tiering them, compactness was gained, floor space was saved and ease of servicing provided at all three stages. An A-shaped structure with three operating levels was designed and erected for pilot operation at the company's Cleveland plant. After several years of experimental production there, continuous spinning and processing had proved its merit and plans were announced for the construction of the 12,000,000 pound plant at Painesville to produce yarn exclusively by this revolutionary new process.

Viscose Operations Similar

In continuous process production, viscose department operations follow the same basic procedures employed in plants using either the conventional spool or pot system. It is not until the filtered viscose is pumped to the spinning machines that the radically different methods come into use. In the conventional methods the yarn is wound into a package as it is drawn out of the spin bath. This package, either a spool or a cake, is removed when full and passed through a series of processing operations. In continuous spinning and processing the yarn is never wound into a package until it is fully processed. As the yarn emerges from the spin bath on the top level of the continuous process machine, the filaments are drawn up to the first of the thread advancing reels. Here the yarn is advanced from the back to the outer end and then it drops through a slot to the processing section below.

On the process level eight more plastic reels carry the yarn through a like number of processing treatments for washing, desulphurizing, bleaching and conditioning. These solutions are applied through glass tubes placed immediately above the individual reels and flow onto the yarn as it passes over the surface of the reels in a single layer. As a result, every inch of every filament receives the same uniform treatment. From the last processing stage the yarn drops into an enclosed compartment which houses the aluminum drying reel. Internally heated by either circulating hot water or steam, this reel thoroughly and uniformly dries yarn as it passes between its extremities. At the final stage, the rayon yarn is given a slight twist as it balloons over cap twisters onto plastic bobbins which hold approximately three pounds of yarn. This is fully processed yarn, requiring only rewinding onto cones before shipment to textile mills.

Each continuous process machine has 200 spinning positions, 100 on each side of its A-shaped frame. Each position is serviced by ten reels to carry the yarn from the spin bath, then through processing and drying—a total of 2,000 reels per machine to deliver yarn of unsurpassed uniformity, untouched by human hands.

While there is a great mechanical achievement in the reduction of time required between the spin bath and the final processing of the yarn as compared with conventional methods, the real advantage of the continuous process lies in the high quality yarns it produces. The number of knots and broken filaments in the final cone package is substantially reduced because of the ability to process the strands in continuous lengths and the elimination of physical handling of the yarn. Even application of processing solutions by individual thread treatment assures yarn uniformity not only within a package but from package to package. Machine controlled accuracy during drying maintains this uniformity in luster, denier and strength as well as in dying properties.

The demand for this new yarn grew so rapidly that within less than a year after operations had started at Painesville, the first large commercial plant to employ this process, an expansion program increasing capacity by 50 per cent was undertaken. This brought the pre-war volume of continuous process yarns to 18 million pounds per year which was consumed primarily in lining, dress and drapery fabrics. The war period saw a large percentage of these yarns diverted to military applications, such as the bomb and aerial delivery parachute, tow targets and other needs required by the armed forces. In some cases, semi-high strength yarns were necessary and they were also produced on the continuous process machine.

Continuous Process Hi-Tenacity Rayon

When the rubber crisis came and the urgent need for rayon cord demanded an expansion of high-tenacity rayon producing facilities, Industrial Rayon's continuous process gave an excellent demonstration of its versatility by its ready conversion to tire yarn production.

The problems presented by tire yarn centered to a considerable degree on methods of stretching the newly formed yarn to provide both the desired strength and elongation in the finished product. Industrial's engineers found that this could be accomplished by merely changing the gear ratio of two of the ten thread-advancing reels serving each position on the continuous process machine. It was also necessary to adjust the reels to provide for wider spacing of 1,100 denier tire yarn as compared with the spacing necessary in producing 100 to 150 denier textile yarns. This was readily achieved by altering a simple element in each reel to provide the desired additional spacing.

American Association Meets in May

The American Cotton Manufacturers Association's first full-scale convention in several years will be held at the Carolina Hotel, Pinehurst, N. C., May 14, 15 and 16, according to an announcement by Dr. William P. Jacobs, president of the organization.

The meeting will begin at 2:30 p. m. Tuesday, May 14, and will close at noon Thursday, May 16. "We expect this convention to be a constructive, instructive, educational as well as an entertaining one," Dr. Jacobs has stated. "We are planning a very comprehensive program including what we hope will be a thorough analysis by experts of the position of the industry from a number of different angles." •

These gear changes, plus the required reel adjustments, permitted maintenance of the desired degree of tension during all of the processing operations. Moreover, because the continuous process permits the application of solutions to each individual strand of yarn, and drying without relaxation before it is wound on a take-up bobbin, the need for a separate slashing operation was eliminated.

Continuous process production of tire yarn was started in the company's Cleveland plant in July of 1943. Spool spinning machines which had been in operation there were removed and replaced by continuous process machines. Original tire yarn capacity of 11 million pounds has since been increased to 20 million pounds at Cleveland and 22 million at Painesville.

Up-Twisting Made Possible

Because the continuous process delivered fully stretched and processed tire yarn on revolvable bobbins, it is possible to "up-twist" cord instead of utilizing the conventional down-twisting, required when yarn is delivered on beams. Twisting machines at the Cleveland plant which were converted from textile yarn were used. When the expansion of the company's Painesville plant for the production of tire yarn, cord and fabric was authorized and materials were available for the building of new equipment, the company's engineers, working with the Whitin Machine Works, developed twisting units capable of handling nine pounds of cord on a single spool—the equivalent of two bobbins of yarn. The battery of machines for this purpose is housed in a new six-acre textile building in which the plant's tire yarn output can be twisted into cord and woven into fabrics. By utilizing this up-twisting technique, abrasion and knots are reduced to a minimum and thus the full inherent strength of the yarn is realized in the cord produced from it.

Asked to supply large cones of tire cord for maximum efficiency in the production of wetless tire fabric, the company developed and manufactured an 18-pound precision wound cone, the largest ever made. The creeling operation in which these cones are used required that the cord be twist set, since it was fed over end without tension. Satisfactory twist setting of these large packages could not be accomplished by the simple application of heat and moisture—the methods commonly used for small packages in the textile industry. The company therefore investigated the possibility of high-frequency heating for this purpose and in due course developed the electronic twist setting process now identified as LEKTROSETting. This process proved to be so efficient and so greatly improved the handling of cord in the company's own production of fabric that it is also utilized in the twist setting of cord on spools before they are placed

(Continued on Page 40)

The Rapid Changes

taking place

in Weaving

and especially in connection with
the many new synthetic yarns,
such as Saran, Vinyon, Velon, etc.,

*call for the most experienced
and careful thought
to be given*

*to every item
making up the*

LOOM HARNESS

It calls for the careful analysis and decision as to the weight, finish and style of heddle (1) to be used for the particular warp yarn, and for the design to be woven — the type frame (2) and its accessories — the particular reed (3) — drop wires (4), shuttle (5), etc.

All this we are in position to advise and help you with, free of obligation.

Specify and use

QUALITY LOOM HARNESS EQUIPMENT

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(Flat Steel Heddles, Frames, Reeds, Southern Shuttles)

Made by

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2100 W. Allegheny Ave., Philadelphia 32, Pa.
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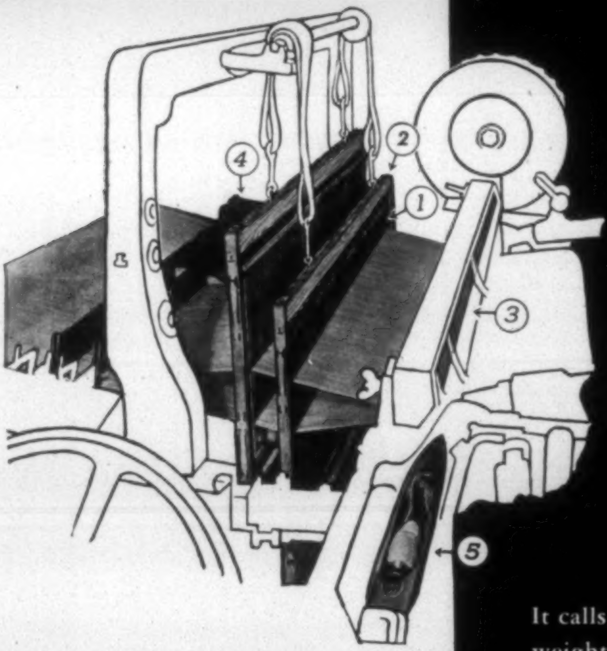
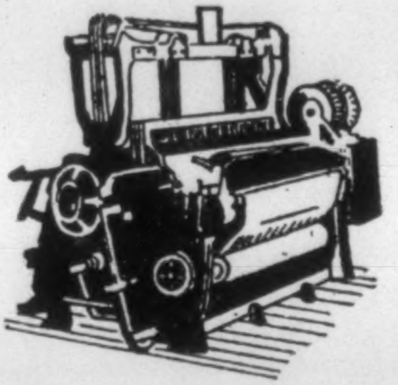




Loom Installations and Check-Ups

By H. E. WENRICH – Part Two

REED control should be exact. On tight reeds there is no question but that the continued pounding of high-speed looms has a tendency to spring reed wires along the bottom ribs. Another similar appearance of reed damage is due to pressing the reed deep into the reed groove at bottom. And, when forcing the cap or handrail into position, the reed presses against the race plate edging and is forced out of exact vertical line. Something must give. And in this type of set-up the weakest point is at the reed wires along the bottom edge, being the shortest length, they are more likely to take the bulk of beating-in pressure. If beating-in action could be magnified and watched during rapid movement of the lay, it would be noticed that the reed is forced backward slightly as pressure is exerted on the beat-up, and as the lay turns over past the fell of the cloth, the reed snaps back against the race plate edging.

Follow the above outlined movement of high-speed action and reed movement or vibration, and the weakest point of yield is at the guide wires, since between bottom and top guide wires the reed wires flex. As continued pressure builds up, crystallization of reed wires causes breaks along the bottom guide wires. Occasionally this type of breakage takes place along the top guide wires, but not so often. The resulting strain of high-speed beat-up will often prove a source of reed marks and broken warp ends, as reed wires fail to flex back into normal position, resulting in these imperfections.

From the writer's point of view, the movement of an exactly regulated swing reed is more satisfactory for production and weaving of quality cloth. If reed is positioned and adjusted as best possible, there is no contact of reed wires against race board or race plate, as the bottom and top metal caps are firmly held into their respective wood caps and pressure at beat-up is transmitted through the wires into the metal caps. As beat-up at the fell of the cloth takes place, the reed swings back slightly and eases pressure. This action softens the striking action of the reed and related parts, and helps produce a better piece of cloth. There is less efficiency on high-speed looms than on slower-running looms, but as high-speed looms offer less cost per yard, the installation of such looms must continue in order to stay in or enter highly competitive markets.

When New Looms Start Producing

After the first six months of wear, looms have most of the "bugs" removed—depending upon hours of running time—and start producing both quality and production. This period of breaking-in is, of course, dependent upon various factors, including the ability of the section fixer to overcome various unforeseen disturbances and the free use of quality replacement parts.

The pros and cons of two and three-shift operations are not entered into this discussion from an income viewpoint, but brief mention must be made from past experiences the author has had in conjunction with new looms.

Many firms feel that maximum efficiency can only be obtained on a three-shift schedule, but there are limitations to human mechanization and a third shift never reaches full effective power as a single or double-shift program. Many schemes to reduce certain costs on higher-priced new machinery have been tried, but if machines are down half an hour or longer for repairs or worker-fatigue during midnight hours, then costs increase rather than decrease. There is one known instance of a weave plant allowing all looms to run after the second shift ceased work for the day, and watchman or one fixer tended the entire weave room during the hours between second-shift shutdown and first-shift start. But after a few months, having experienced a run of burnt-out loom motors and other serious breakdowns, the management discarded the plan as being too wasteful.

To a certain extent, however, the more steadily new looms are operated, the quicker they will give a steady production of quality cloth. But after many years of wear, looms start on the downgrade. This period of obsolesence is hastened by many elements during the earlier stages of productivity, such as cheap repair parts, lack of sufficient supplies to make necessary replacements, lack of oil and grease, atmospheric conditions, and poor fixing due to fixer's lack of knowledge, loom overload and for various other reasons.

When the point of full development has been reached and decadence starts in, the amount of sub-standard merchandise begins to increase. Fortunate indeed are weaving plants, equipped with old looms, that fixers ripened with sufficient experience to keep those looms producing a fair amount of yardage with quality.

To keep new looms in fine condition, good replacement parts must be kept constantly on hand for immediate use. To save on supply parts is good management, but to skimp or retrench in trying to be penny wise often costs more in the long run. No loom can produce satisfactorily when inferior parts are used.

Many looms replaced by new looms are often placed on the second-hand machinery market. These machines are often excellent looms if kept up in fair running shape, but having been discarded for a better loom, are allowed to run down months ahead of replacement schedule. At other times, through liquidation of plants, many excellent looms are placed on the market which are in really fine shape. If these looms have been kept up in the matter of quality supplies, they will give quality goods in return, and but a small outlay in expense will be encountered when conditioning them in their new location. In this post-war era many of these discarded looms will find their way into other countries, and in many instances fixers will have to be instructed as to the general overhauling and final adjusting of all motions on these looms.

A wise policy is co-operation between management and foremen and fixers when selecting supplies. Fixers especially may not complain about parts breaking or wearing too rapidly, but if their advice is requested on selecting between various supply items, past failures are usually well remembered and inferior goods brushed aside.

When renovating old looms a plentiful amount of supply parts must be used. There is a strange paradox regarding old looms changed from one location to another—even in the same weave room. In the old location, efficiency ratings may be 85 per cent more or less, and after placing and starting into operation in the new location, the efficiency rating will drop as much as 30 per cent. In the new location, weavers fail to keep looms running; cloth defects are more troublesome; fixing is more often required, and a general condition of disgust among all employees and management prevails.

There are many reasons for the foregoing conditions. And the elimination of trouble sources requires time. When changing locations from one locality to another looms are empty, and after installation in the new weave shed, should be re-overhauled the same as on a new loom. Lifting upward on the lay ends will disclose a serious condition of neglect that produces a run of defective merchandise and frequent calls for fixers. When lay ends can be moved up, it is obvious that rocker shafts have worn according to movement.

If rocker shafts are worn half through or more, it is best to replace with new shafts. If less than half the shaft diameter is worn through, then blocking the shaft up can be resorted to. But by all means make the shaft firm from any up and down movement; oscillating movement must be retained, however.

If rocker shafts are not too badly worn they can be turned one-quarter which will bring the worn part to the front or back in place of on the bottom. A one-half turn of the rocker shaft would place the worn spot on top, and during a bang-off, would allow the loom lay to jump upwards. Another method of removing play is to drive the shaft through approximately one-half inch and retighten all studs and set screws. This brings a new, full unworn section of shafting into the end of the bearing and will last for several years. Another method that will prolong rocker-shaft life for many years is to drive a piece of 2 x 4″ hardwood under the shafting. There is a trick in the later method. Place the 2 x 4 block of wood against the shaft and measure where the rocker shaft would ride—perhaps approximately 3-¼ inch on the block from the floor line. Now lift the shaft up on one end by lifting on the lay end. Distance of lift can be reasonably judged and if about ¼ inch, then the block must be cut to a depth of ½ inch, leaving 3-½ inches in height. In cutting use a hacksaw and cut nearly a U-shape out ½ inch in depth. Chisel off ¼ inch from one end so one side of the block will be 3-¾ inches in height, and the end past the "U" cut four inches in height. Place the block so the lower end is forced under the shaft. A hammer for driving the block in place may be necessary. After the block is under the shaft, drive it over near the lay foot on the loose end side.

After raising the rocker shaft to original position and blocking firmly, stop motions and protector dagger ends will have to be readjusted. Generally, when old looms are placed in a new location, loom leathers should be given a thorough check for wear and replacement. On multiple-shuttle looms, former placement of leathers may not be so desirable, and an entirely new outlay in bumper and check straps may be necessary. If looms have been idle for considerable time, leathers may have became useless from fungi and require replacement.

Good Leathers Required

When conditioning old looms, place on good leathers. Worn leather, broken straps and other leather odds and ends can often be used for pick-stick pull-back straps, washers, and in various other places where a good, flexing lather is not an absolute must. Such odds and ends, however, should be free from minor breaks, mildew, oil soakings and thin spots worn nearly through. Occasionally, check straps can be cut for pull-back straps by trimming broken ends and cutting to required lengths.

But for checks and bumper straps, special leathers are now a positive need on higher speeds—and on looms producing efficiently good leathers must be used. And when leathers have lost their resilience, make replacements as soon as possible. One of those annoying sources of broken-pick defects and jerk-ins can often be traced directly to a "dead" bumper strap or check. On multiple-shuttle looms, when the spindle bumper-strap has been softened and fails to spring back with sufficient force after the forward stroke of the pick, the rawhide picker strikes too solidly and gives a near appearance of a choked pick. This action results in an erratic throw to the shuttle, becoming a constant source of broken picks and other cloth imperfections until a new strap replacement has been made.

Occasionally, when a fixer is bewildered with broken-pick trouble, the broken filling strand is often found bunched near the selvage. Extracting the strand and stretching it to its full length towards the shuttle box will disclose the length to reach near the box mouth. This indicates the shuttle is often in a wobbly movement coming out of the box and can often be traced directly to the method or manner of placing on the check-strap.

Check for misaligned motion. If picker sticks are twisted and bind slightly the shuttle may be thrown out or turn completely over. This trouble results in skips and over or under-shots, and when loose threads are trimmed away on the picker during sheering, the aftermath will be a mis-pick, double pick, or broken pick defect.

Among the most important items requiring checking is loom leveling. On concrete flooring, this trouble is not often bothersome, as looms can be cemented on felt pads and flooring is engineered as nearly level as possible. But on wood flooring, certain spots may be weak and allow the loom to sag. Leveling can be accomplished by using a regular level and padding up with leather or felt.

Textile Machinery Developments

By CARL D. BRANDT, Director of Research
Whitin Machine Works, Whitinsville, Mass.

DURING the war period our shop was very closely tied to government work. In fact, over 90 per cent of our production for a long time was in fields entirely foreign to textile machinery. As a result, the little textile group got pushed over in one corner, and we stayed there for three years without accomplishing a great deal. I know most of you men expect revolutionary things, new methods, new equipment; but I am sorry to say they are lacking. I think you are acquainted with possibly everything we have to offer today. There is nothing radically new in any of the lines.

In pickers, we have nothing radically different or new from what you have in your plant or could get before the war. It is quite true that there is some thought being given to new methods of cleaning. They have not progressed far enough to be of any practical value at the present time, at least not to my knowledge. Whitin has done very little along that line. There are the regular pickers, feeders, blenders, spirawhirl, just as you are familiar with.

On the card we have done some work, especially on the card for blends. We have our regular standard cotton card, practically little changed from what you are familiar with. But to run blends we do offer a roller and clearer card. Some of you may wonder what advantage that has to offer over the regular flat card. In some respects it is quite different. The action of the roller in the clearer card is quite different from the action of the flat card. You get a lifting off and a redepositing of fiber as the stock passes around your cylinder. With the flat card that type of action is not so very great. The amount of blending that this card does depends, first, on the number of workers and strippers that you have. You might have three; or you might have four, five, or six. At each point where you have a worker or stripper you take the stock off the cylinder, pull it slightly, tear it apart, and put it back on. Meanwhile the cylinder has traveled on, so you put it down at a different spot. That gives you one means of blending this material as it passes through your card. Naturally, if you have three workers it takes place at three points; if you have six it takes place at six points. Theoretically you have a better blend as you have more workers and strippers. If you set the roller close to the cylinder you are going to take off more of your stock; if you set it wider it means you increase your speed.

Ordinarily this worker here will pick off from 50 to maybe 70 or 75 per cent of the material that you feed on at your licker-in. That, of course, makes this quite different from the regular flat card. We do not recommend the use of this card on either fine deniers or short staples. It is an ideal card for rayon blends, whether you blend viscose and acetate or viscose and wool or anything of that kind. The deniers should be at least 3.0. That is, 1.5 denier or finer does not work so well on this type of machine. But in the field of blends and fancy materials we feel that this card does offer you advantages which are not obtained on the regular flat card.

Staple length is not so important. That is, it will run 1.5 to 3.0 inches or longer. It is the coarseness or fineness of the fiber that limits it. It will take anything that will hold together in your web. Of course, if you have too coarse a denier you have trouble with it at the doff, and you have to watch that point.

As for the drawing, we offer bi-coil drawing especially for cotton. That has advantages, we feel. It works at a lower draft, and we feel that with lower draft you get maybe a little better control of the fiber than with high draft. You sacrifice some of the doubling; that is true; but we feel that if the card sliver is kept up to a high quality that is not so important. There is a saving in floor space, as the production of the machine is quite high—almost two times the normal set-up, and a saving in cans, especially back of your roving. Those are all factors that should be considered.

Our roving frame remains quite the same as it has been since before the war. There is very little change in that set-up; and spinning, of course, is practically the same also.

So that limits our new machines, as you might say, or new developments to very narrow fields. It does not mean that we are not thinking about new things. We are considering the whole process all the way through, but at the moment there is nothing radically new with which I could stir your hopes.

I have here a few figures on some tests we have made which I thought might be of interest to you. We hear a lot about break draft. Why do we use break draft, and how much should we use, and so forth? We have done a little work here, and I will give you a rough idea of what our results have been. Maybe you will agree; maybe you will not. I am just presenting these things as I found them.

To begin with, I do not think the term "break draft" is properly used. When you speak of break draft you mean an actual pulling apart or breaking the draft. In this work we have done we find that you get the most benefit if you pull that tight enough so you get the maximum control in your strand before you get the actual break. That depends upon a number of conditions. It depends upon, first, the length of the cotton; second, the amount of twist in your roving;

The remarks published on this and following pages were presented at the recent meeting of the Southern Textile Association's Northern North Carolina-Virginia Division at Greensboro, N. C. Divisional Chairman Smith Crow of Lexington, N. C., presided over the meeting, which took place Nov. 17 in the Cone Memorial Y. M. C. A. of the Proximity Mfg. Co. White Oak mill community. During the session the divisional officers were nominated for and elected to another term. In addition to Mr. Crow they are S. T. Anderson of Leaksville, N. C., vice-chairman, and Howard Barton of Spray, N. C., secretary.

and, third, on the setting or the distance between your back and your second roll. They all influence the way in which the break draft roller works.

We did some work on break draft and made some experiments, and from them my conclusion is that no break draft is quite detrimental. The results, to me, indicate that you need to be sure to use enough break draft. If you use a little too much you are not suffering as much as if you get no break draft. The cotton we used was about one inch or $1\frac{1}{16}$ inches, and we used normal settings of $1\frac{3}{8}$ inches and $1\frac{3}{4}$ inches on the rolls.

In another series of experiments we plotted break drafts again. We set the rolls at different distances, starting with $1\frac{3}{4}$ inches and going to two inches, $2\frac{1}{4}$ and $2\frac{1}{2}$ inches. In other words, with close setting—$1\frac{3}{4}$ inches—we get a rather flat production curve, showing that for a given space and close setting the amount of break draft was not too critical, provided you get beyond this hump point. They all dropped off rapidly here down to the no-break-draft point. But unless you got to that point it did not make much difference if you did overdraft a little bit, provided your rolls were set closely. As you widen the rolls you notice these curves begin to take on a sharper peak. That indicates that with the wide setting the amount of break draft becomes more critical. In other words, as soon as you reach your point of maximum benefit and pass beyond that you are beginning to get into trouble, and you get into trouble very quickly. The wider you make your setting the more critical that becomes. With a wider setting you can run a little higher break draft. But be careful that you do not overdraft or underdraft, because if you do you get down on these points in a hurry; and that means you are sacrificing some of the value of the stock that you are running.

All of this indicates that we should have no fixed setting or that we should have no fixed break draft, to get the most out of our stock. For years we made our frames that way; we had a fixed back-roll setting and had a fixed draft. You see that we were not far from wrong, and we did not sacrifice much in the value of the stock. So far as running was concerned, one did not sacrifice too much. But if you had adjusted roller stands and could adjust it to your particular cotton, whether carded or combed, you could adjust it and get the most out of your stock. It is true that it is an awful job to adjust rolls all the time, but if anybody is on a steady run I think it would pay him to look into that and see what he can do. It is true many machines do not have adjustable back sections, but it does have possibilities as to value.

In the short time that is left me we will talk just a little about fibers. I believe some of you are interested in rayon and rayon blends; and I think you will always be, because they have very definite uses and fit into certain types of materials. I do not feel, as the German manufacturer does, that rayon is going to pass out of the picture. I think it will always be used. Another thing; rayon is an ideal fiber if you want to study the effects of fineness and length or any of the qualities we have been trying to study in cotton. In rayon

IN ATTENDANCE AT THE RECENT S. T. A. ANNUAL CONVENTION

TOP LEFT: Members of the Southern Textile Association are shown at the morning session. TOP RIGHT: The S. T. A. associate members division gathers for a brief meeting prior to the general convention. LOWER LEFT: Former S. T. A. President Joe C. Cobb, Immediate Past President M. Weldon Rogers, Current Vice-President John M. Caughman and Secretary-treasurer James T. McAden: CENTER: Virgil E. McDowell, now chairman of the board of governors of the Southern Textile Association. LOWER RIGHT: The speakers' table at the luncheon session, left to right, Herman A. Dickert, director of the A. French Textile School, Georgia School of Technology; Elliot B. Grover, acting dean, North Carolina State College school of textiles; Dr. Hugh M. Brown, dean, Clemson College school of textiles; W. M. McLaurine, the principal luncheon speaker; B. M. Bowen, current S. T. A. president; John M. Caughman, association vice-president; John C. Turner, chairman of the associate members division; and Marshall Dilling, executive secretary of the Southern Textile Association.

you get a fine staple, uniformly fine, and you can have it cut to any length you want. So it is very useful in studying some of the elementary processes, and we have used it a great deal in that way.

We made some studies in denier—in other words, on the effect of fineness. If you consider the average denier to be 1.5, which is the most common, and call that 100 per cent, the others, based on that, ran something in this order:

EFFECT OF FINENESS

.75 denier		140 per cent
1.00 "		130 " "
1.50 "	(standard)	100 " "
3.00 "		86 " "
4.50 "		75 " "

You will see that the finer the denier the more you get out of your material. That, I think, is something that we should naturally expect. The more fibers you can get in a certain cross-section the more strength and the more value you are going to get out of that material. Some work has been done on .75 denier, which is I think about as fine as the rayon people have made. That was 40 per cent stronger than the same yarn made with 1.5 denier. The only difference was the fineness; 1.0 denier was 30 per cent stronger. When you go to coarser deniers you lost strength.

The meaning of this can be translated directly to cotton. There also, of course, you get this quality of length; the finer staple cotton is generally longer cotton. You get two factors there—improvement due to fineness and improvement due to length. This rayon was all cut to the same length; I think it was 1⅞ inches. It was all 1⅞ inches, and it was spun into 30s yarn.

Based on a return, if these fibers were broken in the flat-bundle test the ultimate break of the yarn ran something in this order: 1.0 denier, 1⅞ inches, broke at about 85 per cent of the comparative figure, based on the fiber breakage straight. In other words, taking the ultimate of what you could expect from the fiber, these breaks in here were about 85 per cent of your total. With the 1.5 denier this begins to drop, and you get from 60 to 65 per cent.

In working with cotton, if it is carded or if it is combed makes a difference, and apparently that is due to the fact that here you have a more uniform distribution of fiber length. You get about 30 per cent and maybe 40 per cent of the return of your fiber strength. In other words, due to the fact that your rayon is all of about the same length, you get a higher return in ultimate strength than you do in cotton, where you have a variation in length.

Another thing is blending. We hear a lot about blending, and we all want to get as good blending as we can, especially if the stock is dyed, because unevenness shows up in your materials. There are some facts about drafting that might appear misleading. You would think with more drawing the better effect you would get. But after you get it into roving form every time you tear it apart you get a selection again. Suppose you have some viscose and acetate. You will find the less you can handle that the better your blend will be when you finish. In other words, you can take the drawing sliver, put it through a one-process roving frame, and spin it; and you will find you have a better blend if you cross-dye it to see the distribution of the fiber or inspect it under an ultraviolet light; you will find you get better blending than if you process three times. The reason is this. You will find as your draft varies the higher it is the more noticeable the effect becomes. The coarse fiber tends to spread to the outside, and the fine fiber will go down to the center. If you draw that once you have some separation. If you repeat it that separation will keep on in the same order, and every time you draw you will get more of the fine filament on the inside and more of the coarse on the outside, and you will end with a yarn which is not as good for blend characteristic as this single-process roving happened to be. I think that has been definitely proved not only in the laboratory but in actual mill tests. Folks wonder why it is so, but it is, and I believe it is due to this separation factor. If you do that all in one operation, one-process roving, you have less separation in your ultimate fabric than if you draw a number of times.

Then, on blending your fiber, I believe the roller card does a better job of blending than the flat card. For running blends I believe the roller card has a very definite field. With that and one-process drawing you will produce a good yarn. The best blending takes place right at the card. If you keep on doubling you will lose it.

Going back to this break draft question, there was one point I forgot to mention. In spinning a fine yarn you will find that in curve of strength, if you build up your twist, the rise is slow up to the point of maximum twist, and from there the drop-off becomes more rapid; in other words, showing that fine yarn is more sensitive to overtwisting than to undertwisting. With medium yarn you find that curve tends to flatten out. In other words, it is less sensitive. With coarse yarn you get a different characteristic. The coarse yarn is sensitive to undertwisting and not so much to overtwisting.

You can carry that right down to the roving. If you make up roving in different twist multiples, 1.0, 1.2, etc., and you break these rovings, if you undertwist that a little bit the strength drops off in a hurry. It runs something like this:

TWIST IN ROVING

1.0 twist multiple	16 per cent
1.2 " "	100 " "
1.5 " "	220 " "
2.0 " "	390 " "

In other words, a difference of two points in your twist multiple means a drop in your strength from 100 to 16. It is quite important, in considering this matter of break factor, to be sure that you have the right twist in your roving. Be sure to have enough twist, because a slight amount of undertwist means you lose control of that roving.

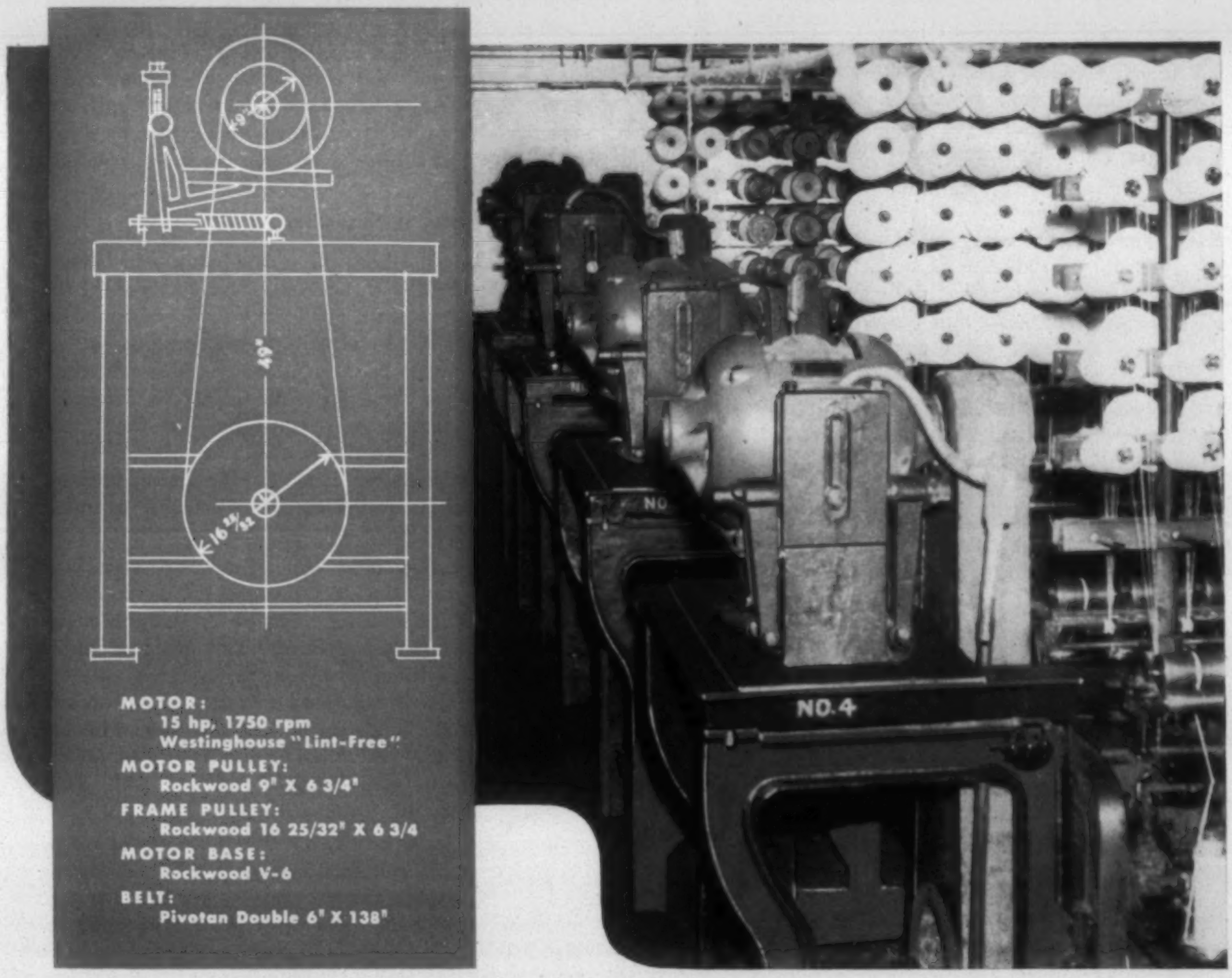
The Role of a Technical Staff in Textile Plant Operations

By G. H. DUNLAP, Research Supervisor
N. C. State College School of Textiles

DURING the war that recently ended, you manufactured goods in an unprecedented volume for military and civilian uses. To say that you accomplished one of the finest jobs of processing in the history of our industry is only proof that you are equipped with the ability. You are due additional praise, in that you performed this record with unskilled labor and in many cases without the assistance of your former technical personnel.

In manufacturing the materials for the armed forces you

A *New Twist* IN TWISTER DRIVES



MOTOR:
15 hp, 1750 rpm
Westinghouse "Lint-Free"
MOTOR PULLEY:
Rockwood 9" X 6 3/4"
FRAME PULLEY:
Rockwood 16 25/32" X 6 3/4
MOTOR BASE:
Rockwood V-6
BELT:
Pivotan Double 6" X 138"

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were forced to meet rigid specifications that were demanded by the Army and Navy. Many of you felt that the requirements were excessively high and sometimes unnecessary, simply because you had never operated under forced conditions for quality. Now that you are in the midst of reconversion from military fabrics to civilian goods, are you making plans to be as rigid in establishing your manufacturing specifications for consumer materials as you were with military materials? Just because civilian goods are in demand as never before in our life span, are you going to relax the imposed manufacturing methods? The average civilian is becoming better educated in the art of purchasing quality fabrics and will, no doubt, remember the inferior materials purchased during the present days. You are confronted with a test that will determine whether you survive the days ahead. Now is the time to put a stamp of quality on your merchandise and strive to improve it. To state it bluntly, you must produce better cotton materials at a lower cost to avoid displacement in the light of scientific changes that are taking place in this modern Industrial Revolution.

The annual consumption of cotton fiber is on the decline, while the consumption of synthetics is steadily increasing. Furthermore, millions of dollars are being spent annually to improve the methods of processing and the quality of the various synthetics, while cotton manufacturers have been hesitant to spend a few thousands.

You are, no doubt, familiar with the manufacture of cotton fabrics that are produced without drawing, roving, spinning, or weaving. This fabric processes great wet strength and enormous absorbent qualities. It is admitted that it has limitations, but you must agree that research on this material will not terminate in its present stage and further improvements and uses will be developed.

Foreign Competition

Another problem that is becoming a source of competition, men, is the growth of the textile industry in South America. They are placing orders, in unlimited quantities, for textile machinery that is manufactured in this country. A recent news item stated that an American firm had received a $25,000,000 order for textile equipment from a South American company. Our country, with the highest standard of living of any nation in the world, cannot compete in an open market with products manufactured under sub-standard conditions. With such conditions put on an equal basis there would be little to worry us, because the American people, with their technical ability and mass-production techniques, can out-produce any other country in the world.

British manufacturers have returned home from a tour of our textile industry and have reported to their industry that England must adopt automatic equipment to save her markets. England realizes that she is faced with losing her textile export markets in all parts of the world and for that reason has practically adopted a forced labor program for the textile industry. From Sept. 1 to Oct. 17, 1945, 4,800 workers with no previous experience entered the cotton mills. In days past, you had some of the export trade that Great Britian is now fighting to hold, but you lost these markets because of the low quality of material you produced. Except for certain restrictions, you are in a position to establish the greatest textile market the United States has ever known, but I assure you that it cannot be done with inferior goods.

The best solution to these difficulties is to seek and demand a technical staff to study and analyze the product from every machine in your plant with the sole objective of making every unit operate more efficiently and more economically. I am convinced you can produce a better material at a lower cost if provided with the proper tools to attack the factors involved.

It is not day dreaming to state that much of your equipment used to manufacture specific items can become obsolete or even idle with the advent of some proposed manufacturing processes. You and all others engaged in the cotton manufacturing business should be greatly concerned and respond with a realistic attitude. If you will only utilize the technical ability and information in such a manner that you are never satisfied with the present efficiency, or quality of material, you are certain to show improvement.

Quality Control Is Necessary

For many generations the textile industry has depended on human judgment or better still "rule-of-the-thumb methods" to control the manufacturing operations. Human judgment is a variable element and seldom produces exactly the same results twice in succession. However, the mill that depends on the "rule-of-the-thumb" is doomed in a competitive market. A mill may have the latest type of machinery, may have the best of raw material, and may have the most competent labor, but if it lacks a staff to conduct the scientific quality control it is failing to make the most of its opportunities.

In recent conversation with an executive of a Swedish cotton mill employing 2,700 employees, I was informed that the plant maintained a staff of 35 graduate engineers to handle all technical problems. This group of engineers did not hold titles of second-hands, overseers, or superintendents but merely comprised the technical staff to control quality, machine improvement, and efficiency. This executive was told that our manufacturers should be on a tour of their plants, acquainting themselves with Swedish methods, rather than their visiting us.

We must devise new and better principles of manufacturing our goods and discard many of our traditional ideas in order to survive. This does not suggest that your present machines must be discarded; it means that you must adopt higher standards of production. It is going to require planning, plans that will be altered time and again, in order to remain progressive. Your post-war plans call for the installation of new machinery which, without question, will increase your efficiency and lower your operating cost. But, if no more effort is exerted to seek the full limits of the new machinery than was given to the old conventional equipment over the long period of its use, then you have gained little. Here is where a technical staff fits into the picture and will be most helpful in establishing standards and reducing operating costs that will benefit the entire organization. Other competitive industries have adopted this system, and I say without restraint that some are more familiar with the limitations of cotton processing and the utilization of cotton products than you are. You do not have to recall many years when *(Continued on Page 40)*

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MASTER MECHANICS' SECTION

A *Model* Thread Yarn Mill

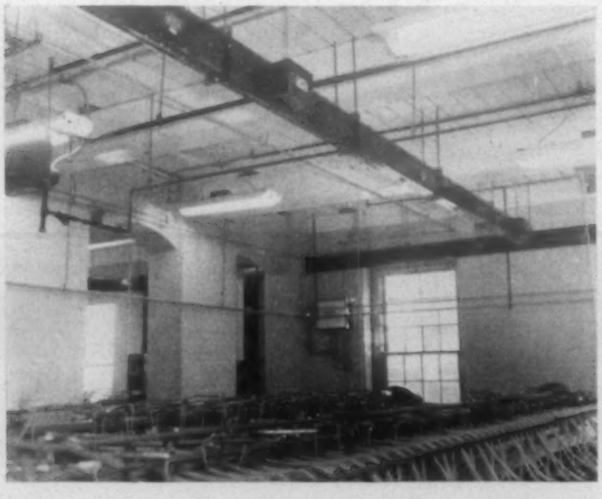
By JAMES T. MEADOR

THE old Nims Mill of Mt. Holly, N. C., had its origin in 1891 at the big bend of Dutchman's Creek about a mile north of town as a plant completely driven by water power. Now a subsidiary of American Yarn and Processing Co., it is known as American Yarns, Inc.

Although a modern plant for the manufacture of industrial thread yarns, manufacturing operations are housed in a building partially erected a little more than half a century ago. Changes which have been effected in the physical property are indicative of what can be done in a modernization program directed toward the meeting of increased competition.

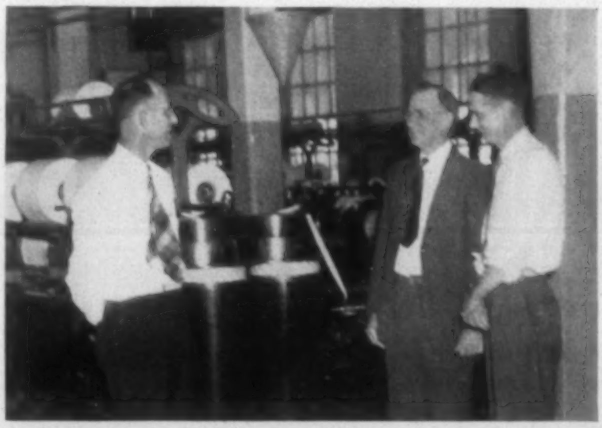
It was on May 1, 1891, that Mr. Charles Egbert Hutchison called together a few interested friends to organize and build a cotton mill, and on June 6, 1891, an organization was perfected and stock was subscribed to build a mill at the Nims Shoals on Dutchman's Creek. This organization was called Nims Mfg. Co., and the following directors were elected: W. D. Rankin, E. A. Rankin, R. K. Davenport, Luther Nims, John O. Rankin, J. Alonzo Abernethy, M. R. Dewstoe, Charles Egbert Hutchison. Mr. Dewstoe was was named president and Mr. Hutchison was elected secretary and treasurer and the executive-manager of the business.

A one and one-half story brick building and a storehouse, and some dozen or more residences for operatives were erected. From time to time through the years the mill building and village were enlarged, and additional machinery for spinning carded yarns and for the production of seine twine and cable and hawser cords was installed.



Showing the entrance switches (through the openings) for the bus-duct system mounted on the wall adjacent to the power transformers; the main 600 ampere run coming directly overhead, with the 400 ampere run in the other room, in the background. Note the plug-in units mounted on the side of the bus-duct with circuits extending to various motors.

In 1920, this mill, with others under Mr. Hutchison's management, was consolidated into one corporation, known as the American Yarn and Processing Co., but some ten years later this particular plant was closed, the machinery disposed of, and the mill building and warehouses used as storage warehouse space for the expanding business. In 1944, under the management of R. S. Dickson, president, and at the request of the government, new machinery was purchased, the buildings renovated and modernized. Before the machinery could be erected the end of the war came, but the reconversion of the plant continued; it is now in operation. This installation consists of a new picker room equipped with modern machinery, part of which is the latest cleaning machinery, set up to run on Egyptian cotton. The card room was re-floored and new Saco-Lowell cards and combers installed. Whitin drawing and fly frames comprise the roving process equipment. An Abington vacuum stripping system for the cards was purchased and is ready to be installed. In the spinning room and the remainder of the second floor new Saco-Lowell spinning frames and new H & B twisters, with Foster winders and Whitin reels comprise the equipment. A new boiler house



Left to right: James T. Meador, author of the accompanying article as well as electrical engineer on the modernization job at American Yarns, Inc.; C. C. Hope, general superintendent of the Nims and Woodlawn Plants of American Yarn and Processing Co.; and C. O. Morgan, superintendent of the Nims Plant.

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Shell Textilis Oil 34K is but one of a complete line of lubricants designed specifically for each type of textile machine lubrication. Many textile manufacturers have found it worth their while to talk to one of our Shell Lubrication Specialists about their textile lubrication problems. Why don't you?

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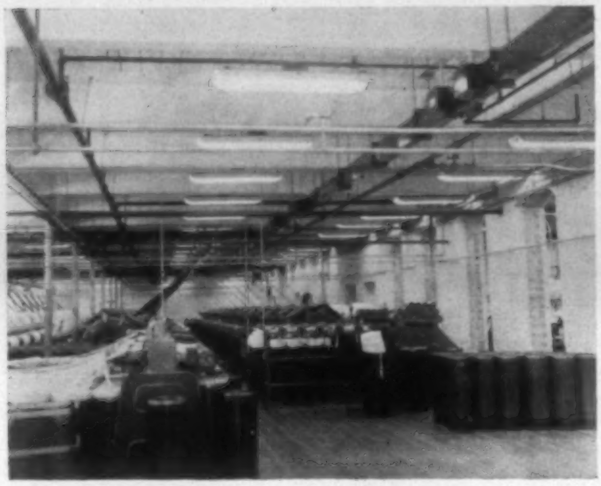
with new boiler was erected to furnish steam for a modern heating plant.

The mill is lighted with fluorescent lights and all main wiring is carried in bus-ducts (see illustration), the modern way to encase high capacity conductors. The inside color scheme is in colors so arranged to eliminate all glare and accident hazards. All platforms are of reinforced concrete between mill and waste house and warehouse.


Showing the main 600 ampere run of bus-duct down the mill, with branches going off to the left to various distribution centers. Note plug-in units on side of bus-duct.

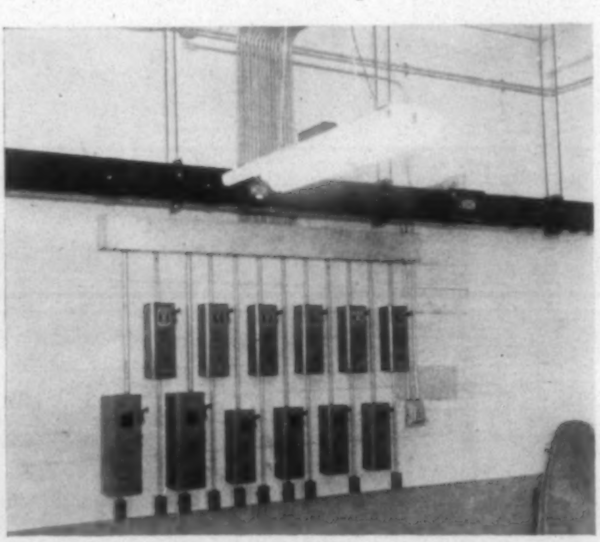
This plant is laid out to produce combed thread yarns, 8s to 26s, any ply. There has been no effort spared to make this a model for a modern thread mill, as may be seen by the accompanying photographs, and after many baffling delays in obtaining material and equipment, it was fully modernized and in production by July of last year.

When the plans were being formulated for remodeling the mill, the Southern Electric Service Co. of Charlotte was called upon for the electrical engineering and electrical construction for both power and lighting. This involved improved equipment from a three-fold standpoint of cost, service, and maintenance. Therefore, it was determined that the electric power would be 550-volt, three-phase, 60 cycle, which Duke Power Co. agreed to furnish by transformation from a 44,000-volt supply line fed directly from their Mt. Holly central station, with enough capacity for a load of 1,000 horsepower in the mill.

View along the motor alley in spinning room showing the power wiring coming up through the floor from the bus-duct just under the beams below.

For the distribution of electric power in the mill these two different types of electrical systems were considered on the basis of both cost and future capacities: (1) conduit system with central switchboard; and (2) bus-duct system *without* switchboard.

The conduit system has a service feeder from the outside wall nearest the power transformers to the switchboard room, of two three-inch conduit lines of three cables (500,000 circular mils each), a distance of approximately 100 feet. The switchboard was contemplated as being of the "free standing" type where all the switches, fuses, etc., are totally enclosed on all sides with a steel case or box, leaving the switch handles only exposed. This was given first place in our considerations because of the long and very satisfactory record of trouble-free service in cotton mill operation where the accumulation of lint is prevalent. From here the branch circuits were considered to be of the 100 ampere rating, consisting of 1½-inch conduit with three No. 1 Type R Cables (varnished cambric cables were not available at the time), which, according to the National Electrical Code, permitted tap-off circuits to the various motors, etc., of one-inch conduit and three No. 8 Type R wires.


Showing the picker room power control panel and the method of taking off from the bus-duct with the feeder from the plug-in unit.

The bus-duct system, with service entrance directly on the inside of the mill wall adjacent to the power transformers, eliminates the necessity of any switchboard at all. This was divided at the entrance so that one branch of 600 ampere capacity duct ran directly through the length of main section of the mill, then branched out through the wall to the picker room. The other branch of 400 ampere capacity ran through the length of the other section of the mill in a straight line. Both branches were mounted immediately under the beams of the ceiling of the first floor by means of coach rods and brackets, which permitted circuits to be run from the "plug-in" adapter switches across the ceiling and down to any motor needing connections, also circuits could be extended from these adapter switches upward, through the floor to any machine on the second floor with no overhead wiring necessary.

By comparison, the bus-duct system showed a slightly lower installed cost, and an infinitely wider range of flexibility and future capacity than the conduit system. So, upon this basis, the bus-duct system was approved, and the Square "D" product was chosen. The accompanying photographs show, in a general way, the manner in which the bus-duct is installed, with the branch circuits extending out from the "plug-ins", which can be seen as being mounted on the sides of the bus-duct at various locations.

Readers who might be further interested in this type system are invited to send inquiries to this magazine, stating their problems, etc., and the writer will be glad to try to be of some service to you.

Lanier Heads New Textile Concern

George H. Lanier, Jr., has been named president of Lanier Textile Co., newly organized distributor of cotton yarns, with headquarters in New York City. The company will merchandise the products of the Wehadkee Yarn Mills of Rock Mills, Ala., Chinabee Mills of Talladega, Ala., Mallison Braided Cord Co. of Athens, Ala., and other mills. A native of West Point, Ga., Mr. Lanier is a graduate of Washington and Lee University and, prior to his new position, he was director of the cotton and synthetic textile division of the War Labor Board. He also is vice-president of Joseph B. Warne, Inc., of New York. He has been associated with the textile industry for about 17 years.

Robert P. Avary, formerly of West Point, has been named the Philadelphia representative of the Lanier company. He was with the Wehadkee Yarns Mills before entering the Army, from which he was recently discharged.

Burkart-Schier Builds New Warehouse

Erection of a new warehouse and enlargement of its testing, research and production laboratory in Chattanooga, Tenn., are under way by Burkart-Schier Chemical Co. The new warehouse for storage of chemicals will contain 15,000 square feet of floor space and will be in close proximity to other company buildings.

Report Boosts Cotton Tire Cord

The Pace Cotton Committee of Congress has informed the National Cotton Council that "recent government tire tests do not substantiate magazine and newspaper advertisements claiming that rayon cord is superior to cotton cord in all types of tires." The committee, which is studying cotton industry problems under the chairmanship of Rep. Stephen Pace of Georgia, reported that cotton cord in passenger car tires withstood all tests applied to it and was in good condition after 68,000 miles of high-speed driving.

In addition, the tests are reported to show that a much improved cotton cord can be produced by the use of certain varieties of cotton. Conducted by the Rubber Reserve Co. in co-operation with the Bureau of Agricultural and Industrial Chemistry of the Department of Agriculture, the tests included comparisons made on light trucks of standard cotton cord, rayon cord, and cotton cord made from improved varieties of cotton. They were made at San Antonio, Tex., on the Federal Government's tire test fleet.

Passenger car tests were discontinued, the Pace Committee said, after cotton cord tires driven at 60 miles an hour had outworn their original treads and a recap tread, and were still in condition good enough for another recapping. The committee said a group of rayon tires driven in a truck test gave 16 per cent more mileage than the improved cotton cord tires, but this was attributed to the type of tire construction rather than to any fiber quality since no fabric failures occurred in either group.

For the third consecutive year, the highest award in the National Victory Garden Institute competition has been awarded to the Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc. of Passaic, N. J., "in recognition of its distinguished record in the encouraging of victory gardens and more food preservation." Four hundred gardens were worked by Manhattan's employees on the ten and a half acre project.

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Here Is the Issue

The efforts of President Truman's fact-finding commission to use the earnings of General Motors as the basis for deciding whether or not certain wage advances should be given to employees, while apparently an innocent movement, really means that if generally adopted there will be an end to free competition and that all manufacturing and business enterprises will become socialized and regimented.

The statement of General Motors in resisting this effort towards socialization is so important that we feel justified in using editorial space to call attention to it. The statement was as follows:

General Motors has faced what it believes is a highly critical issue. It has made its decision. It is important that the public understand the issue. The issue at stake transcends the interests of General Motors. There is involved something far more consequential—a most vital principle.

Is American business in the future, as in the past, to be conducted as a competitive system? Or is the determination of the essential economic factors, such as costs, prices, profits, etc., upon which business success and progress depend, to be made politically by some governmental agency instead of by the management appointed by the owners of the business for that purpose?

America is at the crossroads! It must preserve the freedom of each unit of American business to determine its own destinies. Or it must transfer to some governmental bureaucracy or agency, or to a union, the responsibility of management that has been the very keystone of American business. Shall this responsibility be surrendered? That is the decision the American people face. America must choose!

General Motors has made its choice. It refuses to subscribe to what it believes will ultimately become, through the process of evolution, the death of the American system of competitive enterprise. It will not participate voluntarily in what stands out crystal-clear at the end of the road—a regimented economy. If this is what the American people want, they must make that choice through their accredited representatives in Congress. General Motors declines for itself to take such a great responsibility.

It may be said that this is an exaggeration. It is not! All business questions are interrelated. Costs, prices, wages, profits, schedules, investments must be the responsibility of management. Political determination of such relationships means regimentation.

The idea of ability to pay, whatever its validity may be, is not applicable to an individual business within an industry as a basis for raising its wages beyond the going rate.

Consider the implications of such a principle. Who would risk money to develop or expand a business under such circumstances? Where would be the incentive to do a more efficient job? Would it be intelligent to destroy the incentive for efficiency? Would it not be more intelligent to subscribe to the principle that no one should be "FORCED" to pay more than the going rate? Should General Motors, assuming it is more efficient, be required to pay more for materials, for transportation, for services or for wages than its competition? And how much "MORE" determined by a political governmental agency.

Do you subscribe to the belief that you should pay for what you buy or the services you use on the basis of your financial resources? It is clear that this is the principle involved.

The President of the United States has appointed a fact-finding board to inquire into the circumstances involved in the demands of the U.A.W.-C.I.O. upon General Motors and to make recommendations related thereto. General Motors stood ready to supply the board with all necessary data regarding wage rates, employees' earnings, hours of employment, and all other relevant information regarding wages and employment. However, the board has ruled that General Motors' ability to pay will be considered as a factor in determining an increase in wages. This would require an appraisal of costs, prices, prospective volume of business, investment factors, expenses and the entire forward operating program of the business. Thus the board would assume the most vital functions of management.

General Motors is not contending that it has or has not the ability to pay. It always has paid liberal wages. It has attempted through protracted collective bargaining sessions to determine what is fair and equitable today. It has made a fair and liberal offer to the union.

Notwithstanding the importance of re-establishing employment and resuming production at the earliest possible moment, the above reasons have made it impossible for General Motors to participate in the proceedings of the board under the procedures as now established, and it has therefore withdrawn from the hearings. It takes that position with great regret. But it does so in the sincere belief that this action is in the long-term interests of employees, consumers, investors, and of the public as well—and of higher standards for all.

Training In Garment Manufacturing

Under the influence and with the financial assistance of the North Carolina Textile Foundation, there has recently been established in the School of Textiles at North Carolina State College a knitting department which will be well staffed and fully equipped.

Very liberal donations of equipment by manufacturers of knitting machinery have insured that the latest models of almost every type of knitting machinery will be available to students and the support of the North Carolina Textile Foundation has assured that the teaching staff will be second to none.

Students taking a four-year course in the school of textiles will take regular textile studies including the manufacture of knitting yarns, but in the last two years will devote their time to knitting and research in knitted fabrics rather than to designing and weaving fabrics.

For many years knitting mills have had to train their own managers and operating executives but now there is a place where a knitter can send his son or some other young man to be especially trained for the operation of a knitting mill.

There will not be many years before most of the knitting mills of the South will have specially trained men in their organizations and we believe that the industry will benefit from their acquisition.

Recently there has come a suggestion that a department of garment manufacturing also be added to the school of textiles at North Carolina State College so that young men taking a four-year textile course may specialize in garment manufacturing and be prepared to enter the industry as a life business.

A garment manufacturer should know how to design and sew garments but he should also know how cloths are made and the wearing and other qualities of many types of fabrics.

This is especially important in this day when many fabrics made of synthetic yarn or blends of cotton and wools, with many types of rayon, are being placed upon the market and hundreds of new fabrics will soon be developed.

Dr. Frederick Peirce, who recently came from the Shirley Institute in England to become head of the research department of the School of Textiles at North Carolina State College, has done considerable research in the field of garment manufacturing, especially in the strength of seams, and we believe that much more such research should be done.

If the garment manufacturing department is established, a young man taking a four-year textile course could specialize in garment designing and manufacturing which would include research in garment fabrics, seams, etc.

The garment manufacturing industry is one of the largest consumers of textile fabrics and yarns and we believe that many mills, no matter whether they make cotton gray goods, rayon or specialty fabrics or thread yarns, would be benefited if there was a constant flow into the garment or cutting industry of young textile school graduates who had majored in garment manuacturing.

The addition of the garment manufacturing department will, of course, make it necessary for the school of textiles to add to its faculty some man experienced in garment manufacturing.

This editorial is a feeler and is designed to discover whether or not the textile industry feels that the garment manufacturing industry is closely enough affiliated to justify being attached to a school of textiles.

His University Training

William Joyce, notorious "Lord Haw Haw" of the German air waves, has gone to a traitor's death on the gallows of Wadsworth Prison in London, England. The notice of his execution said "Joyce, who came to England from America at the age of 15, became a follower of Sir Oswald Mosley while a student at London University.

At London University there apparently were several professors or instructors interested in promoting fascism and they must have been able to influence the immature William Joyce, just as at the University of North Carolina, a small group believing in socialism and communism finds certain students whose minds can be influenced towards accepting their theories.

Leaving London University, a believer in facism, William Joyce engaged in facists street fights and then when Germany entered the war went to Berlin to become a radio propagandist for Hitler.

These professors and instructors who prey upon the immaturity of young men who enter their classrooms are employed by branches of the very governments which they seek to destroy and when any effort is made to dislodge them they prate about "academic freedom" and "freedom of speech."

Under their influence many speakers are brought to address student forums and they loudly proclaim that students are given both sides of every question.

Immediately following a radical speaker, the professors and instructors amplify and commend statements which are in accord with their theories, whereas following addresses by conservative speakers, they point out alleged weaknesses in their arguments and nullify the influence of their statements. Students naturally have confidence in the statements of their professors and instructors and are easily influenced when such teachers make favorable or unfavorable comments upon ideas advanced by speakers.

Very few students who leave college as confirmed communist or confirmed facists, had any such views when they entered the institution.

"Lord Haw Haw," while at London University came under the influence of professors and instructors who were fascists and became such an enthusiastic believer in fascism that he turned traitor to his country.

Most college students are at impressible ages and it is comparatively easy to make them assume the roll of crusaders and to feel that they have a special assignment to save the world.

Fortunately most of them shed such ideas as they become more mature and get away from the professors who influenced them, but there are some like "Lord Haw Haw" who never fully recover and who carry their ideas into private life.

Barkin's Misrepresentation

From a brief prepared by Solomon Barkin, C. I. O. director of research, in advocacy of the proposed 65-cent minimum wage legislation, we quote the following:

> One of the companies, the Gaffney Mfg. Co., refused to maintain the terms established by the U. S. Army when it was operating the mills. This brazen challenge to War Labor Board directives demonstrates the contempt for the public interest, which characterizes so many of these manufacturers.

There was no dispute at the Gaffney (S. C.) Mfg. Co. over either wages, working conditions or hours or anything which would add to the happiness or welfare of the employees.

The entire dispute related to collection of dues by the labor racketeers and to the discharge of employees who refuse to pay tribute to them.

The Gaffney Mfg. Co. repeatedly expressed itself as having no objection to employing members of the C. I. O. or to their paying dues to that organization.

They have refused to act as a collection agency for the C. I. O. or to agree to refuse to employ citizens of South Carolina who do not wish to join the C. I. O. or elect to leave that organization.

The C. I. O. would profit financially if it could force the Gaffney Mfg. Co. to accede to its demands but the employees of the mill would not benefit in the slightest degree.

It is our opinion that the Gaffney Mfg. Co. will stand firm in the position which it has taken and if the union employees of the mills wish to do without wages for weeks or months or possibly years in order to help the labor racketeers force the company to collect union dues for them, they are saps of the first water.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

OLD FORT, N. C.—Contract for the construction of the finishing plant of Clearwater Mfg. Co. has been awarded to Potter & Shackelford Co. of Greenville, S. C., with building scheduled to begin soon. The building will be 100 by 750 feet in area and one story high.

KINGS MOUNTAIN, N. C.—Negotiations for the purchase of controlling interest in Mills Nos. 1 and 2 of Phenix Mills, Inc., here have been completed by Burlington Mills Corp. of Greensboro, N. C. The mills, which are producing cotton yarn and cotton and mixed fabrics, will continue to operate under present management. Phenix Mill No. 1 turns out print cloth and has 48 cards, 388 broad looms and 18,532 ring spindles, and the No. 2 Mill turns out 60 to 80 single and ply combed yarn for knitting and weaving. Machinery installed consists of ten combers, 30 cards, 10,040 ring and 5,020 twister spindles.

LOUISVILLE, KY. — Arrangements are being made to double production at Louisville Textiles, Inc., through installation of additional equipment and employment of more operatives. During the past few months some $20,000 has been spent on improvements to the plant, and a large amount of new processing machinery is now on order. At present the company uses staple rayon yarns in manufacturing upholstery fabrics, but is making plans to use nylon in some items.

UNION, S. C.—Controlling interest in Union-Buffalo Mills Co., cotton textile manufacturer, has been purchased by United Merchants & Manufacturers, Inc., of New York City. The company consists of Fairmont Mills in Spartanburg County, Union-Buffalo Mills at Union and Buffalo, S. C., Nuckasee Mfg. Co. of Greenville, S. C., Union Power Co. and the Union-Buffalo-Carolina Railroad. Combined, the three mills comprise 155,000 spindles and 5,000 looms, employing approximately 5,000 workers. No change in the company's present management is contemplated in the near future.

GREENSBORO, N. C.—The statute merger of Cone Export & Commission Co. of Rockleigh, N. J., and Tabardrey Mfg. Co. of Haw River, N. C., with Proximity Mfg. Co. of Greensboro has been approved by stockholders and directors of Proximity, after the merger of the three corporations had been approved by the stockholders and directors of the Cone company. This action has resulted in the addition of six new directors to the Proximity board and two new officers. New directors are Benjamin Cone; Maurice Hendrick, president of Cliffside (N. C.) Mills; Claude S. Morris, president of Salisbury (N. C.) Cotton Mills; Sidney S. Paine, president of Tabardrey; Charles H. Haynes, chairman of the board of Cliffside Mills; and Earl R. Stall, president of Florence Mills, Forest City, N. C. The new officers will be Mr. Paine, who will become a vice-president of the Proximity organization, and Harold W. Smith, formerly with Cone Export & Commission Co., who will fill the new office of comptroller.

JOHNSON CITY, TENN.—Leon-Ferenbach, Inc., has completed expansion of its throwing mill here, virtually doubling its production capacity.

LEXINGTON, N. C.—Barbet Mills has received a charter to deal in fabrics under authorized capital of $600,000, with $300 stock subscribed by L. B. Hollowell, Evelyn F. Hollowell and Nell Friday, all of Gastonia, N. C.

SYLACAUGA, ALA.—A camp site for the use of company employees, located about 24 miles west of Panama City, Fla., has been obtained by Avondale Mills. Facilities of the property, which include individual cabins, tennis courts, a dormitory and recreation hall, are expected to be ready for use this summer.

GASTONIA, N. C.—American Yarn & Processing Co. of Mt. Holly, N. C., has purchased control of Dixon Mills, Inc., of Gastonia at a price of $225 a share, with a provision on the part of the sellers that all minority holdings must be purchased at the same price if the holders of these shares of stock wish to sell. The total purchase price would amount to $675,000. Dixon Mills operates 15,536 spindles on combed yarns ranging from 51s to 80s two-ply, with a weekly production of approximately 19,000 pounds. It employs about 200 persons. The purchase of Dixon Mills, Inc., increases to 11 plants the group embraced by the American Yarn & Processing Co.

ROCKINGHAM, N. C. — The No. 2 Plant of Hannah Pickett Mills, Inc., has been sold to Karl Robbins, president of Colonial Mills at New York City. The new owner, also operating Robbins (N. C.) Cloth Mills, Inc., and Mid-State Cloth Mills at Red Springs, N. C., has taken charge and at present is continuing operation of the 21,000-spindle and 640-loom plant with the same personnel. The Hannah Pickett No. 1 Plant, containing 77,000 spindles and 2,500 looms, was sold in September, 1944, to Safie Mfg. Co.

CORDOVA, ALA.—The Cordova Division of Nashua Mfg. Co. is included in a transaction whereby Textron, Inc., has taken over all property of the Nashua, N. H., concern. Textron purchased at $100 per share more than 75,000 shares of Nashua Mfg. Co. common stock out of 108,800 shares outstanding. Nashua will remain a separate corporation with Robert Amory of Boston, Mass., continuing as president and general manager. Other officers will also be retained as well as the sales and operating forces of all divisions.

LURAY, VA.—Luray Textile Corp., at present operating throwing facilities only, is making plans to convert the plant to integrated throwing and weaving. The conversion program, which is to cost some $200,000, will include the installation of approximately 100 looms and the hiring of an additional 70 workers. As a result, all yarn from the throwing department will be woven into rayon fabrics.

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Promotions, Resignations, Elections, Transfers, Appointments, Honors, Notes on Men in Uniform, Civic and Associational Activity

PERSONAL NEWS

Joseph A. Neubauer has been appointed technical adviser to the Columbia Chemical Division of Pittsburgh Plate Glass Co., and will be located in the general office at Pittsburgh. Mr. Neubauer recently completed a mission to Germany, where he represented the government's technical and industrial intelligence committee. He formerly was superintendent of the chlorine works at Natrium, W. Va., owned by the Defense Plant Corp. and operated by the Columbia Chemical Division. . . . Earl Wolf has been appointed superintendent of the Natrium plant, where he has served as plant engineer. He is a graduate of Ohio State University.

H. Gordon Smith, left, general manager of the textile division of the United States Rubber Co., has been elected a vice-president of the company. He will retain his title of general manager and continue his division managerial duties. . . . Also named to a vice-presidency was Ernest G. Brown, general manager of the mechanical goods, general products and Lastex yarn and rubber thread divisions.

S. M. Butler, secretary and assistant treasurer of Carlton Yarn Mills, Inc., at Cherryville, N. C., has opened a yarn brokerage concern in the Commercial Building at Gastonia, N. C., where he will sell all types of yarns direct to consuming plants. Mr. Butler, who has been affiliated with the textile industry since 1920, will retain his present connection with Carlton Yarn Mills. Ben R. Rudisill has been elected treasurer and general manager of the combed yarn plant.

Stanley P. Hunt, left, has been appointed to the staff of the Institute of Textile Technology, Charlottesville, Va., as head of the mechanical engineering division. Mr. Hunt received his B.S. degree in mechanical engineering from Kansas State College in 1919. After teaching at Kansas State and at the University of Wyoming for a number of years, he became associated with the radiation laboratory of the Massachusetts Institute of Technology in 1942.

J. W. Arrington, Jr., vice-president of Union Bleachery, Greenville, S. C., has been named district governor of the new 190th district of Rotary International, comprising the state of South Carolina.

Marie E. Bogen has been elected vice-president of Consolidated Textile Co., Inc., to be in charge of merchandising operations of the company. Miss Bogen has been with Consolidated since last May in a merchandising capacity and before that had been employed by Fruit of the Loom, Inc.

Harry W. Flynn, manager of the Celanese-Lanese Corp. plant at Burlington, N. C., has been elected treasurer of the Burlington Chamber of Commerce.

D. R. Dickson, manager of Greenville (S. C.) Textile Supply Co., has been elected a director and vice-president of the parent concern, McLeod Leather & Belting Co. of Greensboro, N. C.

Pictured above is Walter W. Gayle, Jr., of Charlotte, son of the Southern manager for Saco-Lowell Shops, currently stationed with the Marine Corps First Division in China. The snapshot of Corporal Gayle, who volunteered for service three years ago when a textile engineering junior at North Carolina State College, was taken at Tientsin before his outfit was transferred to another Chinese city, Chenwangto.

Emmet Steger of Sherwin-Williams Co. at Charlotte, J. H. Spencer of Barber-Colman Co. at Greenville, S. C., and Vasser Woolley of Seydel-Woolley Co. at Atlanta, Ga., were named directors of the associate members division of the Southern Textile Association at that organization's recent annual meeting in Charlotte.

WITH THE MILITARY—Four officers of the Philadelphia Quartermaster Depot have been awarded the Legion of Merit for "outstanding contributions" to the war effort while serving at the depot. They are Col. Herman C. Kliber (director of procurement), Lieut.-Col. Carl R. Geisler (director of personnel), Lieut.-Col. Robert J. Dillon (formerly executive officer of the procurement division), and Maj. Jules Kurtz (fiscal division chief). . . . Lieut.-Comdr. Edward G. Glover, left, has been released from active duty with the United States Naval Reserve and has resumed his duties as treasurer and secretary, respectively, of Textile Mill Supply Co. and Charlotte Mfg. Co. He served three years in the Navy, handling petroleum supplies in the Mediterranean area. . . . Lieut.-Comdr. John H. Wilmerding, discharged after four years of service in the Navy, has resumed duties as manager of the acetate rayon sales division of American Viscose Corp. in New York City. . . . Walter Clark, recently discharged from the Army Air Forces with the rank of major, has joined the staff of TEXTILE BULLETIN as assistant business manager. He received a number of decorations for service in the Mediterranean theatre as squadron leader of a heavy bomber group. He is the son of Thorne Clark, president of Massapoag Mills Corp. at Lincolnton, N. C., and the nephew of David Clark, John W. Clark, W. A. Graham Clark, B. B. Gossett and Ralph Gossett, all affiliated with the textile industry. . . . Maj. J. Y. Rogers, Jr., left, now released after five years of Army duty, has joined the firm of Jas. E. Taylor & Co., Charlotte, representative for Houghton Wool Co. of Boston and F. J. Stokes Machinery Co. of Philadelphia. . . . John D. Roddey, former sales manager for New England Waste Co. of Boston and Charlotte, has rejoined the Charlotte staff of the company in an executive capacity. He served as a Navy lieutenant-commander for 29 months, handling supply details at Pearl Harbor and Guam. . . . Col. Walter M. Scott has been released from active Army

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duty and has been appointed director of the U. S. Department of Agriculture's Southern Regional Research Laboratory at New Orleans, La. He has served with distinction in two world wars and is well known throughout the textile chemical industry.

William L. Wetzell, Jr., has resigned as Carolinas sales manager at Charlotte for Foster Machine Co., effective Jan. 1, to enter the yarn selling business. He will sell direct to spinning mills from headquarters in the Commercial Building at Gastonia, N. C. After graduating in textiles from North Carolina State College Mr. Wetzell had several years' experience in cotton spinning and full-fashioned knitting prior to joining Foster in 1941. . . . To replace Mr. Wetzell in the Carolinas and also to serve Virginia, Foster has appointed two new sales representatives. They are Ernest P. Dodge, associated with the company since 1923, and Edwin H. Ely, who joined the firm in 1935 and recently returned from more than four years in the Army. Both are well known in the Southern area, and will have headquarters at 509 Johnston Building, Charlotte.

John F. Bogdan of Nashua, N. H., has been appointed research technologist and professor of textiles at North Carolina State College, Raleigh. Mr. Bogdan resigned as head of the yarn manufacturing department of Manville-Jenckes Corp., Manville, R. I., to accept the new post. Professor Bogdan will work primarily on a research project in fabric development as assistant to Prof. E. B. Grover and Dr. F. T. Peirce.

Albert S. Miller, service superintendent of the E. I. du Pont de Nemours & Co. acetate rayon plant at Waynesboro, Va., has been appointed special assistant to W. L. Stabler, manager of the personnel and industrial relations division of the firm's rayon department. He has been with DuPont since 1922. . . . Frederick T. Entwistle, who has been assistant service superintendent at the Ampthill, Va., plant, has been appointed manufacturing superintendent at Waynesboro. . . . George Groh has resigned as manager of fabric development for the company's nylon division to become director of fabric development and research for the Colonial Mills organization in New York City.

OBITUARY

Thomas Jones Lutz, 90, founder of Hudson Cotton Mfg. Co. at Lenoir, N. C., died recently at Washington, D. C., after an illness of five years. Funeral services were held at Lenoir.

W. C. George, 52, assistant superintendent of Peerless Spinning Corp. at Lowell, N. C., died last month. He is survived by his mother, wife, two daughters, five sisters and a brother.

G. G. Shaver, 54, an operating official of Halifax Cotton Mills at South Boston, Va., was killed instantly Dec. 20 when struck by a passenger train near the mill. His wife survives.

John W. Lasell, an executive of Whitin Machine Works at Whitinsville, Mass., has been listed by the War Department as killed in action. He was reported missing in action some time ago. He leaves his widow, his mother, three daughters and a son.

For the Textile Industry's Use

EQUIPMENT — SUPPLIES — LITERATURE

Sipp-Eastwood Opens Office in Charlotte

Sipp-Eastwood Corp. of Paterson, N. J., has announced the establishment of a Southern office at Charlotte under the management of S. Fred Toll. The office is located temporarily at 2128 Greene Street until permanent quarters can be secured.

Goodrich Releases Catalog On Plylock Belt Joint

Featured by an illustrated step-by-step description of making rubber belts endless by the Plylock method, B. F. Goodrich Co., Akron, Ohio, has just issued a new catalog section on its Plylock Belt Joint. In the Plylock Belt Joint method, ends of the plies are interlocked and sunk beneath the surface of the belt by the removal of a short section of the fabric in the second ply, and the resulting depression filled with a reinforced rubber cushion. Then the joint is permanently vulcanized with belt thickness remaining uniform throughout and ply ends locked in position. The catalog section declares that installation of equipment and training of employees within industrial plants on the Plylock method have been highly successful. Seven advantages of the Plylock belt joint are listed, with reasons and data supporting each claim, and some of the Plylocked belts in service are pictured. The catalog is available upon request.

Watson and Desmond Firm Will Distribute Machinery

A new textile machinery distributing firm for the South, with headquarters in Charlotte and branch offices in other Southern cities, has been established by Clifton E. Watson and S. P. V. Desmond (see cut, left to right). The firm, to be known as Watson and Desmond, will operate from 118½ West Fourth Street in Charlotte. Field offices will be operated in Greenville, S. C., Greensboro, N. C., and Atlanta, Ga., with Walter Daboll in charge at Greensboro and John F. Littlefield in charge at Greenville.

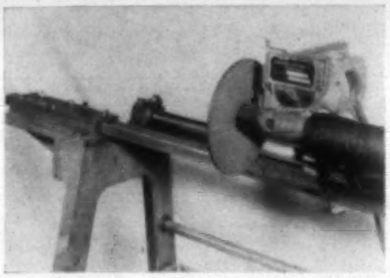
Watson and Desmond will handle a complete line of bobbins, spools, shuttles, reeds, heddles, frames, twine harness and belting for the entire South. Among manufacturers which they will represent are Emmons Loom Harness Co., Watson-Williams Mfg. Co., D. P. Brown & Co., Vermont Spool & Bobbin Co., and Dana S. Courtney Co.

Mr. Watson was general manager and in charge of sales for Watson-Williams Mfg. Co. from 1922 to 1940, at which time he was appointed manager of Southern sales for Emmons Loom Harness Co. During the war he served with the War Production Board in Washington as chief of the textile mill maintenance section and later as chief of the textile machinery branch. Mr. Desmond for the past 18 years has been associated with Crompton & Knowles Loom Works, handling all of its business in Georgia, Alabama, Mississippi, Kentucky, Tennessee, the Carolinas and Virginia. He will continue his connection with Crompton &

Knowles until April 1, after which he will devote his entire time to the new firm.

New Jackspool Machine Announced By Sjostrom

A new jackspool stripping machine has been announced by the Sjostrom Machine Co. of Lawrence, Mass., said to make obsolete the method of stripping jackspools by hand with a knife or hook. When the jackspool is placed on the framework, a specially designed revolving knife, motor-driven, is pushed along the spool by the operator, cleanly cutting and dropping the waste yarn in a removable receptacle. Dimensions of the machine are six feet in length, three feet wide and three feet and six inches in height. It weighs 400 pounds. Advantages claimed for the machine are that there is no pulling, ripping or hacking and no danger to the operator by cutting; no damage to barrels of jackspools; a saving in labor and time; no costly installation; and adjustability of the machine to various lengths of spools.



U. S. Stoneware Issues Constructional Manual

A booklet entitled *Corrosion-Resistant Masonry Material and Construction Manual* has been issued by the U. S. Stoneware Co. of Akron, Ohio, prepared by the engineering staff of the company. Identified as Bulletin 810, the publication comprises facts and suggestions pertaining to materials and construction methods for tanks, towers, stumps, floors and other construction. The manual is divided into two sections, the first designed to provide the engineer with sufficient information to enable him to select intelligently the most effective materials for a given type of construction and service. The second section contains engineering data, design details and construction aids. The booklet may be secured upon application.

Transmission Belt Line Described By Goodrich

A new catalog section on its line of transmission belting has just been published by the B. F. Goodrich Co. and is available upon request. Featured is the company's leading transmission belting, Highflex. Details of the manufacturing and testing program for each foot of this belt are given, as well as its advantages in service. Highflex, Jr., industrial and textile belting and several other types of transmission belting are described, with tables listing stock sizes.

Cards Illustrate Usage Of Fire Extinguishers

A new series of concise, comprehensive instruction cards, explaining the operation and maintenance of four of the most widely used types of hand fire extinguishers, has been prepared by American-LaFrance-Foamite Corp. of Elmira, N. Y. They cover the foam, soda-acid, vaporizing liquid and carbon dioxide types. Illustrations accompany the text, showing the various steps to be taken in handling, operating and maintaining the extinguishers. These cards, mounted adjacent to the extinguishers they illustrate, will provide a guide to plant employees. Upon request, a reasonable number of the cards will be available to industry free of charge.

Elwell-Parker Bulletins Present Load Logistics

Types of loads and economical methods of handling them are discussed in four bulletins issued by the Elwell-Parker Electric Co. of Cleveland, Ohio, builder of power industrial trucks, and represented in the Carolinas by the Engineering Sales Co. of Charlotte. Supplementing the company's booklet, *Industrial Logistics: A Survey for Management,* the bulletins treat of the logistics of boxes, barrels, bags and bales. The purpose of the bulletins is to assist manufacturers and distributors to determine the best form and methods of handling raw materials, semi-finished and finished products.

A number of examples of classified loads with photographic illustrations, representing Elwell-Parker's experience in developing appropriate handling systems in more than 300 branches of peacetime industry, are contained in the bulletins. Copies of the booklet and bulletins may be obtained free of charge upon request to Elwell-Parker Electric Co., 4205 St. Clair Avenue, Cleveland 14, Ohio, or the Engineering Sales Co., Builders Bldg., Charlotte.

New Draper X2 Loom To Be Ready Soon

The latest issue of *Cotton Chats,* published by the Draper Corp. of Hopedale, Mass., heralds the forthcoming availability of the firm's new Model X2 super high-speed loom. It is described as a 40-inch loom which will run from 202 to 224 picks per minute on two-shade weaves.

In a move to extend its service to the Southern textile industry, Draper Corp. has acquired a site at Atlanta, Ga., for the erection of a plant estimated to cost approximately $400,000. The firm plans to construct a building containing some 80,000 square feet and employing 100 persons. At present the company maintains sales and service offices as well as a supply department in Atlanta.

Goodyear Chemical Products Division In Expansion

Expansion of the chemical products division of the Goodyear Tire & Rubber Co. to handle demands in the post-war period for plastics and coatings, builders' supplies and flooring, Airfoam and Pliofilm, the latter in packaging and wearing apparel, is being effected.

Assistants to C. P. Joselyn, division manager, are E. E. Ellies, a mechanical engineer with experience in development work, and Herman R.

Theis, former assistant director of Goodyear research. Mr. Theis also serves as manager of the plastics and coatings department. Other department managers are Howard D. Herbert, Airfoam sales; Otto C. Pahline, builders' supply and flooring; A. F. Landefeld, Pliofilm sales.

In the Pliofilm sales department A. B. Clunan is in charge of the direct packaging organization. Reporting to Mr. Clunan will be W. J. O'Keefe, New York; J. B. Post, Chicago; E. D. Beadle, Los Angeles; and R. J. Buskirk, Atlanta, all in charge of district sales offices. In the builders' supply and flooring department A. W. Biggs serves as assistant manager.

Sherwin-Williams Promotes 'Pestroy' As Insecticide

A new DDT concentrate, "Pestroy," designed to provide mills, factories and other commercial users with an economical, safe and easily employed insecticide with high residual value, has been developed by Sherwin-Williams Co. Pestroy is described as a 25 per cent DDT concentrate, diluted with water to make a powerful repellent and insecticide which can be sprayed or brushed on any type of surface to destroy insects. It is claimed to be odorless and stainless and, when properly diluted with water, to be fireproof. A one-gallon can of Pestroy, diluted with four gallons of water to make a five per cent solution of insecticide, is said to cover effectively 4,800 square feet of surface. An ordinary low-pressure garden sprayer or paint brush may be used in applying Pestroy.

Towmotor Corp. Releases File On Its Equipment

Users and prospective users of lift trucks and lift truck accessories can find the right answer to practically every question about Towmotor equipment, in a compact product data file, complete with appropriate information and illustrations. One section of the Cleveland firm's data file describes in detail the many special abilities of each Towmotor model lift truck and lists each truck's operating capacities. A section devoted to accessories explains the special uses for which each Towmotor accessory has been designed.

The file also contains analyses of every Towmotor design and construction feature, together with factual explanations of the operating requirements which are the reasons for each feature. Another section concentrates on actual case studies of how Towmotors solve varied materials handling problems. Also included in Towmotor's comprehensive data file are a lift truck operator's guide designed to show the way to greater effectiveness in operations of lift trucks; and a materials handling analysis guide, to help factory, warehouse and terminal managers determine their need for better materials handling methods. Copies can be had free of charge by writing Towmotor Corp., 1226 East 152nd Street, Cleveland 10, Ohio.

Brochure Traces Growth Of Industrial Researchers

A brochure describing the background and function of Arthur D. Little, Inc., Cambridge, Mass., as a consulting laboratory in industrial research, has been released. The growth of the firm, from its establishment in 1886 as a two-room laboratory to its later incorporation and larger facilities, is outlined in both text and photographs. Also described are the company's fields of operation and its departments of chemistry, chemical engineering, applied biology, mechanical development and patent.

Taylor Announces Device For Timing Batch Processes

A process timing mechanism built into the 94R Type Fulscope temperature or pressure recording controller for the purpose of timing batch processes such as hosiery dye machines has been announced by Taylor Instrument Cos. of Rochester, N. Y. According to the manufacturer, the process is started by manually adjusting the instrument for the desired time period, timing commencing when the apparatus reaches the set point of the controller. At the end of the time period, the process timing mechanism automatically terminates the process. The mechanism and its applications are shown by illustrations and piping diagrams in Bulletin 98152, which may be obtained upon request to the manufacturer.

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WANTED—Position as Barber-Colman Spooler and Warper man; 14 years' experience; married, three children. Now employed but wish to make change. Experienced with cotton and rayon both. Good references. Write "B-S," care Textile Bulletin.

WANTED—Position as sales representative for a good textile supply company, by a practical mill man with some technical education and also some sales experience in the textile field in the South. Address "Box 1141," care Textile Bulletin.

WANTED—Classing or buying position with cotton mill or shipper. Age 41, married, 20 years' experience buying and classing cotton. All growths. Now employed by shipper but desire change. "Box 4510," care Textile Bulletin.

WANTED—Position as roller coverer overseer; wife also A-1 roller coverer. 25 years' experience on cork, calf and sheep skin. References exchanged. "Box 323," Rock Hill, S. C.

WANTED—A boss spinner's job or a second hand job in a big spinning room. Have 15 years' experience as second hand, four years as overseer on night shift. Now employed by large mill, but desire a change. Will go anywhere except Japan. Address "A. B. C.," care Textile Bulletin.

VETERAN—University graduate with eight years' experience in textiles, desires position or salesman or distributor for textile supply firm. References. Address "University," care Textile Bulletin.

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Classified Ads Continued on Next Page

Classified Ads Continued from Page 35

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FOR SALE—HEAVY-DUTY FIRE HOSE

U. S. Rubber Co. 2½" unlined linen fire hose in 100-foot lengths, equipped with National Standard thread couplings, unused, dated 1943. Underwriters Laboratories labelled. Price for immediate delivery: 35 cents a foot in quantities under 1,000 feet; 30 cents a foot in quantities of 1,000 feet or more. Couplings at $4.45 a set.

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Loom fixer on German Pile Loom. Must have experience on Halton's 600-hook rise and fall Jacquard machines. Good opportunity for advancement. Give full particulars in reply—age, experience, former employers, wages, etc. Address reply to

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To call on textile mills to sell and demonstrate chemical products. Must be familiar with manuufacture and finishing of cotton and mixed goods. Prefer chemical or chemical engineering training or graduate of textile school. Salary would depend on qualifications and experience. State full particulars as to age, family status, education and experience.

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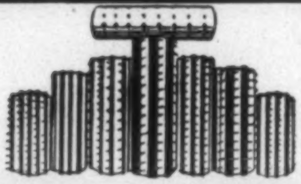

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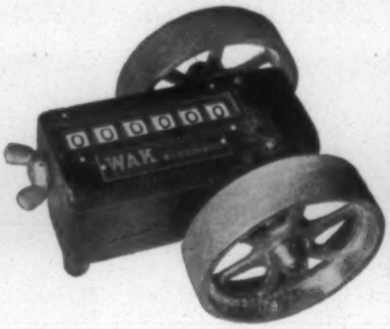

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Cotton Goods Market

Gray cloth quarters in New York City look for a continuation of the trend toward verticalization with less and less gray goods becoming available as this movement develops. However, some market circles believe that the appearance of a normal market once again with its subsequent open competition might very well reverse, or tend to discourage, any further expansion of this movement.

The present acute shortage of cottons should start to ease some time during the third quarter of 1946, these market observers report, though none would hazard a guess as to whether the coming 12 months will witness any real change.

Once the large concerns, which at present are taking the great majority of current output of cottons, begin to see some reserve stocks on their shelves, they will start slowing down their buying tempo, one merchant reports. This will mean the smaller organizations, which at present are not getting very much, will be able to move into the picture. It will also mean a more even distribution of fabrics, thus easing the whole supply situation, it is pointed out.

Though price regulations are largely more of a hindrance to better production than an aid, observers report, some OPA restrictions should be kept in force until the cotton market has completely caught up with the present vacuum.

The labor situation is expected by these sources to straighten itself out during the first six months of the coming year with mills throughout the South reported to be generally resigned to paying higher wages. Once this hurdle has been overcome by the mills, it is said, there should be a slow increase in mill output with subsequently more selling confidence in contracting for forward business in Worth Street.

The cautious sales policies adopted by selling houses have been forced upon them by the various governmental orders which are rarely issued on time, thus leaving houses to guess on just what the obligations might look like, it is explained. If the government could remedy this fault, it is felt in Worth Street, then certainly customers would benefit.

Approximately 40 cotton fabrics are being repriced by OPA to bring them closer to their normal relationship with prices of the "major items" that were issued previously under the Bankhead Amendment. Goods affected include, in the main, material used in wearing apparel, curtains, bags and other miscellaneous minor items.

Members of the cotton textile merchants industry advisory committee, meeting last month, were told by officials of the Civilian Production Administration the first quarter 1946 low-cost apparel program would be "tightened up considerably" as compared to the program for the last three months of 1945.

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Cotton Yarns Market

Some persons active in the Philadelphia cotton yarn market remain pessimistic in regard to easing of the supply situation during the current quarter. One spokesman points out that, knowing his sources of supply and output capacities of these sources, he has booked orders in direct ratio to capacity and is unable to join in enthusiastic predictions of improved market conditions.

Reports from some mills in the South indicate a growing belief among spinners that active employment is not going to be realized until a spell of unemployment strikes the spinning sections.

While slight improvement has been registered at some mills, the general worker shortage is not picking up as quickly as desired. Many observers now feel that until workers are in dire need of jobs and full work-week earnings, the short working day and curtailed employee conditions will show no sharp improvement.

The United States Department of Agriculture moved last month to supply mills with more cotton to maintain capacity production. The department announced that some 650,000 bales of cotton scheduled to be added to Commodity Credit Corp. catalogue stocks will be offered for sale on a bid basis. An additional 850,000 bales will be placed in the catalogue within the next three months.

Heretofore, the additions to catalogue stocks have been offered for sale at the stabilization price announced each month by the department. The announcement said that any of the cotton offered on the bid basis which does not sell at or above the stabilization price on the first offering will be offered at the stabilization price.

The Census Bureau reported Dec. 21 that the cotton spinning industry operated during November at 104.6 per cent of capacity, on a two-shift, 80-hour week basis, compared with 105 per cent during October, 1945, and 120.6 per cent during November, 1944.

Spinning spindles in place Nov. 31 totaled 23,920,574, of which 21,605,060 were active at some time during the month, compared with 23,845,648 and 21,721,792 for October last year, and 23,127,334 and 22,257,040 for November, 1944.

Active spindle hours for November of 1945 totaled 8,672,129,859 or an average of 364 hours per spindle in place, compared with 9,143,000,468 and 383 for last October, and 9,706,627,504 and 420 for November, 1944.

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The Continuous Process For Viscose Rayon

(Continued from Page 12) on creels for warping. In spools before they are placed on creels for warping. In LEKTROSETting, spools or cones of fully processed cord are passed between electrodes on a continuous belt conveyor and subjected to the action of high-frequency electricity in a way which provides uniform distribution of heat.

The ability to set twist on spools and thereby prevent the cord from kinking and curling made it possible to take cord off rapidly over the end of a stationary package. This was in contrast to the conventional practice of drawing cord off the side of spools under tension and an advantage which made it possible to mount spools on conventional transfer creels, and run warpers at speeds that are unusually high for an operation of this type. To have utilized this advantage in weaving direct from spools as in other plants would have meant erecting creels large enough to hold 4,400 spools at one time in order to produce cord fabric with as many as 2,200 ends. Such creels would have called for tremendous floor areas and would have practically doubled the number of spools in constant use.

It was because of these facts and a desire to obtain better means of controlling quality that the company went in search of new weaving techniques and ultimately developed multiple-beam weaving. By this method, each beam carries from 190 to 220 ends of cord and eight to 12 of them placed on each loom creel from which cord is fed into a loom under even tension.

The story of this conversion, and the cord processing techniques to which it led, emphasizes the extreme flexibility of the continuous process and its bearing on the general advancement of quality standards and textile manufacturing techniques. The complete story of the continuous process is as yet unwritten, for the company is now planning extensive further expansion of its facilities for textile yarn production.

The Role of a Technical Staff

(Continued from Page 20) competitive fibers offered you little serious consideration because of the low quality of the fabrics manufactured from them. The situation has shifted, and now you are slated for the role of a second-rate manufacturing enterprise.

You have gathered here today to discuss your problems and offer advice to fellow manufacturers, and I certainly hope these gatherings will increase in attendance. More of you should take part in the discussion, as there is much to be gained from conferences of this kind. A great philosopher once said: "If you have a coin and I have a coin of the same value and we exchange, neither has been enriched; but if you have a thought and I have a thought, and we exchange, while neither loses, we both have doubled our wealth of information."

Color Card Association Elects Officers

J. F. Marble of Waldrich Co. was elected to the board of directors of the Textile Color Card Association of the United States, Inc., at its 30th annual business meeting Dec. 20. Re-elected to the board of directors were Waldo Grose, Botany Worsted Mills; E. Irving Hanson, Hafner As-

sociates, Inc.; Carl E. Kempf, Brewster Hat Co.; W. R. MacIntyre, Joseph Bancroft & Sons Co.; William B. Olmsted, Jr., American Viscose Corp.; Brainerd Pidgeon, Stunzi Sons Silk Co.; Charles Pinnell, Merrimack Manufacturing Co.; Armand Schwab, Armand Schwab & Co.; Roy E. Tilles, Gotham Hosiery Co. Inc.; and John F. Watner, Riegel Development Laboratories, Inc.

At the meeting of the directors the following officers were re-elected: Mr. Pinnell, president; Mr. Tilles, first vice-president; Mr. Schwab, second vice-president; and Mr. Kempf, treasurer. Mrs. Margaret Hayden Rorke was renamed secretary and managing director.

The total number of new members for the fiscal year of 1944 was reported as 325, and for the year 1945 to date the association gained 317 new members.

Cotton Council To Meet Jan. 22-24

The eighth annual meeting of the National Cotton Council of America will be held at Hotel Peabody, Memphis, Tenn., Jan. 22-24, with morning and afternoon sessions on those days. The convention will open with meetings of cotton production and marketing committee, cotton utilization research committee, foreign trade, sales promotion and public relations committees for the purpose of formulating plans on 1946 activities. Oscar Johnston, president of the council, will deliver the annual address at the morning session on the second convention day, followed by an address by George A. Sloan, publisher of Nashville, Tenn. Routine business of the council will be discussed at succeeding sessions, with election of officers and committee reports.

Dow Revises Southern Sales Set-up

Extension of the area of the Washington sales office of Dow Chemical Co. to include Virginia, North and South Carolina, Georgia and Florida has been announced by Leland I. Doan, vice-president and director of sales. The move became effective Jan. 1, Mr. Doan said, and the Washington staff is being augmented to handle the additional activity. Manager for Dow at Washington is Leroy C. Stewart. The Southeastern territory involved has formerly been covered by the New York office.

A United States Navy certificate of achievement has been awarded to the A. E. Staley Mfg. Co. of Decatur, Ill., in recognition of efforts put forth by the Staley personnel in support of the war production program. The certificate was accompanied by a letter from Rear Adm. C. H. Woodward, chief of the incentive division of the Navy, in which he asked the president of Staley to "express to your employees the Navy's sincere appreciation and thanks."

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Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ABINGTON TEXTILE MACHINERY WORKS, Abington, Mass. Offices at Boston, Mass., and Charlotte, N. C.

ACME MACHINE & TOOL CO., 2516 Wilkinson Blvd., Charlotte, N. C.

ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and warehouse, 603 Stewart Ave., S. W., Atlanta, Ga., F. H. Webb, Dist. Mgr. Sou. Sales Reps.: C. A. Carrell, 523 Clairmont Ave., Decatur, Ga., Phone Dearborn 6267; Marcus M. Brown, 1231 Lexington Ave. (Phone 8583), Charlotte, N. C.; William G. Polley, 937 Cherokee Lane, Signal Mountain, Tenn., Phone Chattanooga 8-2635; John C. Brill, 309 Magazine St., New Orleans, La., Phone Magnolia 5859. Warehouses at Atlanta, Ga., Greenville, S. C., New Orleans, La.

AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett and Wm. J. Moore, 15 Augusta St., Greenville, S. C.; The Akron Belting Co., 406 S. 2nd St., Memphis, Tenn.

ALLADDIN LABORATORIES, INC., 68 William St., New York 5, N. Y. Sou Repr.: J. W. Baldwin, 124 E. Third St., Charlotte, N. C. Phone 3-2252.

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ARKANSAS CO., INC., P. O. Box 210, Newark, N. J: Sou. Repr.: Jasper M. Brown, 1204 Greenwood Cliff, Charlotte, N. C.

ARMOUR & CO., Armour Soap Works, 1355 West 31st St., Chicago 9, Ill. Dist. Divisional Offices: Armour & Co., P. O. Box 2664, Birmingham, Ala.; Armour & Co., 1816 Liberty Life Bldg., Charlotte, N. C.; Armour & Co., Jacksonville, Fla.; Armour & Co., Room 601, Chesapeake & Ohio Bldg., Huntington, W. Va.

ARMSTRONG CORK CO., Industrial Div., Textile Products Section, Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. J. V. Ashley, Sou. Dist. Mgr.

ARNOLD, HOFFMAN & CO., INC., Providence, R. I. Sou. Headquarters, 2130 N. Tryon St., Charlotte, N. C., W. Chester Cobb, Sou. Sales Mgr.; Walter T. Bunce, Plant Mgr., Phone 2-4073; Technical Service Men: Reid Tull, 116 W. Thomas St., Salisbury, N. C., Phone 1497-J; W. L. Mills and Philip L. Lavoie, 2130 N. Tryon St., Charlotte, N. C.; John H. Graham, P. O. Box 904, Greenville, S. C., Phone 2922; John R. Brown, P. O. Box 749, Trussville, Ala., Phone 127; Warehouse and Sou. Mfg. Plant, 2130 N. Tryon St., Charlotte, N. C.

ASHWORTH BROS., INC., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S. W., Atlanta, Ga.; Texas Rep.: Textile Supply Co., Dallas, Tex.

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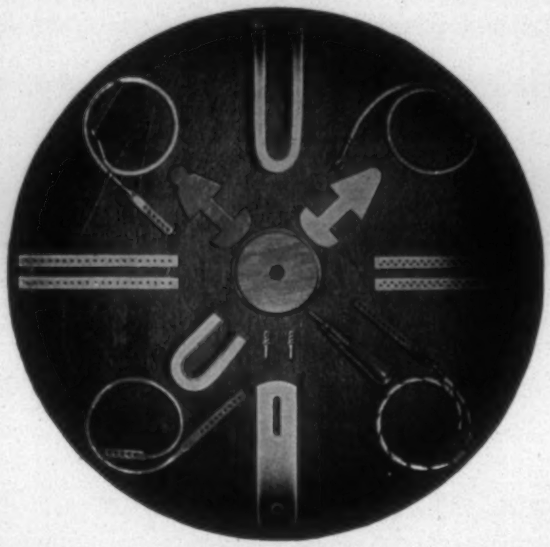

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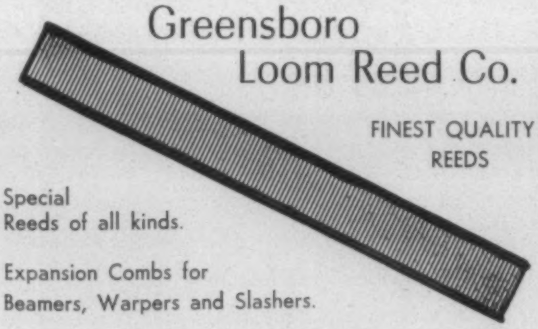

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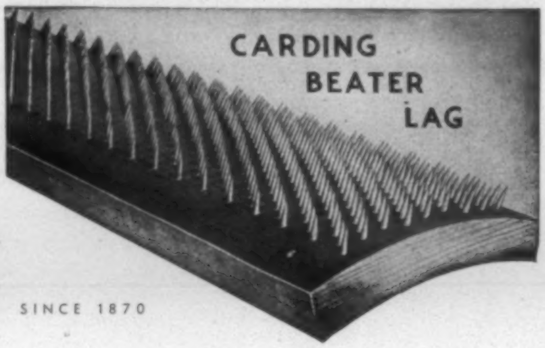

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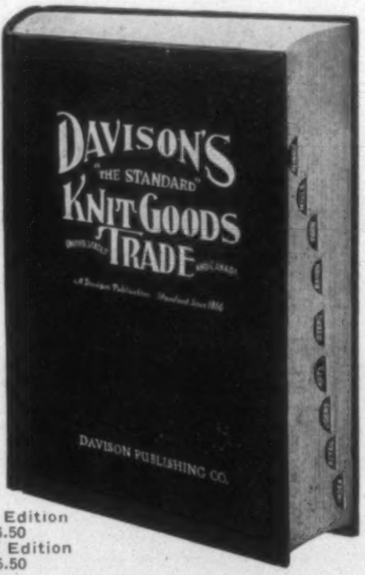

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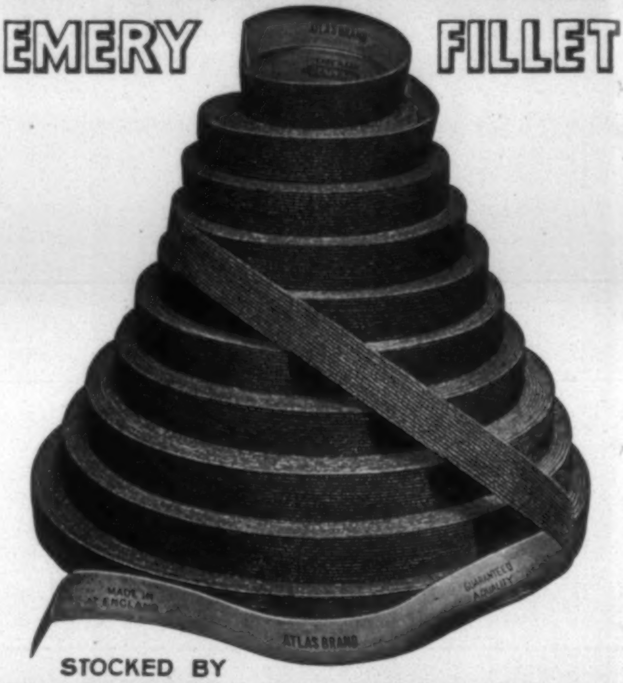

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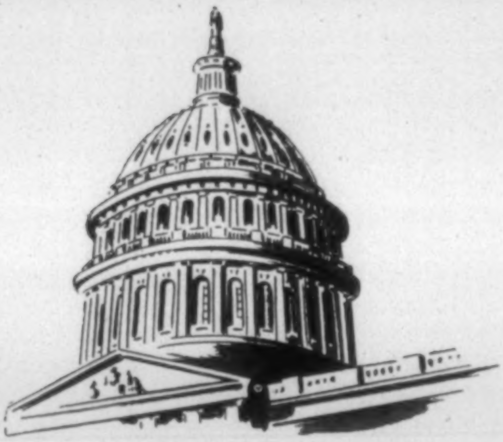


[Exclusive and Timely News from the Nation's Capital]

INCOMING SESSION OF CONGRESS WILL BE STORMY and may develop into all-out battle of opposition forces with the Administration. Resistance will center around President's proposals for legislation on full employment, 65-75 cent minimum wage, compulsory national health insurance, housing and foreign loans. Proposal to bring up FEPC in the Senate Jan. 14 holds the promise of a prolonged filibuster by Southern senators, who have 200 amendments in readiness.

Revision of Social Security and fixing a permanent payroll tax for ten years may be taken up early in January. It is being put ahead of any study of the general tax structure. Over 80 bills to extend and enlarge the system are before the committee, but chances of either enlargement or extension are small. Hearings will run to March or April, and may continue into the fall months.

Extension of the War Powers Act was fixed at six months from Jan. 1. The new bill contains an amendment abolishing a right to aliens serving in the armed forces to become naturalized citizens regardless of other legal requirements. The bill extends OPA's basic rationing authority and CPA's priority and allocation controls authority. It expires by limitation July 1.

Textile industry is in the throes of one of the nation's most serious labor shortages. Slow return of war production workers to looms and spindles is causing grave concern to reconversion agencies, with OPA warning that price ceilings may have to be retained longer than anticipated. Movement is afoot to put all impetus behind increasing the volume of workers in both woolen and cotton industries.

On Jan. 1, over 5,000,000 veterans will have been released; one-half of the total to be released. Full impact of the releases on employment situation is expected to come in the early spring, and offsetting the large withdrawals from the labor market since V-E Day. The Department of Commerce foresees a primary problem between applications and placements in jobs, and a "changed relationship of applicants and job opportunities." The department believes the full impact of the releases on employment will come in the spring and early summer.

Unions are hitting back hard at President's "fact-finding" proposal in labor disputes, and large segment in Congress seems to believe it falls far short of needed legislation. CIO says behind the proposal "is the deep-laid plot of corporations to hamstring and cripple Labor, and eventually destroy it." AFL fears "inquisitorial powers of fact-finding panels," and says it is "irrevocably opposed to any law abolishing its freedom of action, even briefly, at a critical moment of deadlock in contract negotiations."

President's declaration that fact-finding boards should examine employers' books when deemed necessary has Government fact-finders scratching their heads. The President said nothing about price ceilings or price relief; he insists where ability to pay is in question, the fact-finders should dig into the books, but are not to attempt to fix a rate of return for an employer, or make public what they find. Senator Moore (Rep., Okla.) says productivity is the only yard-stick of wages and looking into profits to determine wages is "unadorned socialism, a short step behind communism." He asks what labor will say when profits are small, or the books show losses.

CIO sets up its case for substantial wage and salary increases now in the contention the country is facing grave danger of deflation. Unless the downward trend in total wage and salary payments is reversed, it asserts, buying of the increasingly available quantities of goods will not be sufficient to make enough jobs. CIO contends that take-home pay has dropped by $20 billion since V-E Day, and that present prices represent vastly increased profits to producers.

President's demand that the House abandon its substitute "full employment" bill and accept the original version has run into a stone wall of House opposition. House conferees behind Alabama's Manasco, as chairman, assert they will not recede, and Senate conferees resist acceptance of House version. Fight may prove to be the high mark in the rising House tide of opposition to President's postwar reconversion program, which many House leaders feel is strongly influenced by CIO "brain trust."

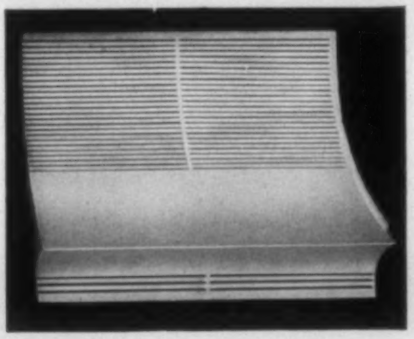
Hottest fight in Congress is brewing in Senate over reporting the 65-75 cent minimum wage bill. Senator Ellender (Dem., La.) demands further hearings, and says sudden labor committee vote to report the bill was taken when he was ill. Committee has agreed to reopen hearings for certain witnesses opposed to bill, whom Ellender says were throttled.

Congress will accept President's pocket veto of return of Employment Service to state control in 100 days, but is expected to decline to include further Federal control in next extension of War Powers Act beyond July 1. Practical effect of the pocket veto is to extend by 83 days the time before USES goes back to the states.

World cotton stocks are now at the highest levels on record. Total cotton on hand in principal producing countries at the end of the 1944-1945 season reached 26.5 million bales of 478 pounds each, an increase of 400,000 bales in a year. The Agriculture Department says the increase reflects the decline of consumption in Axis-occupied countries in the 1941-45 period, when their access was less than a million bales a year. Stocks in the U. S. during the war declined by two million bales, but Brazil's are six times the pre-war size; India's stocks have doubled, and Latin-American stocks have increased substantially.

OPA is considering a low-cost price boost in woolens like the rise granted in cottons. The reason is that clothing scarcity promises to get worse before it gets better. Production is not keeping up with demands. Workers in both cotton and woolen industries are slow in returning to the mills from war plant jobs, and returning veterans are shopping around for higher pay before taking a textile job. OPA is checking off a wage boost in woolens and worsteds as certain.

Revival of all major wartime price controls, applicable to foodstuffs and other materials, is under discussion by the President's top advisers. Reason is that the strike epidemic has completely upset the reconversion schedule, and new shortages in consumer goods are appearing almost as severe as a year ago. Several top officials hold that the controls must be continued in effect until the wave of strikes disappears. It's possible some of the controls may be restored before the month's end.



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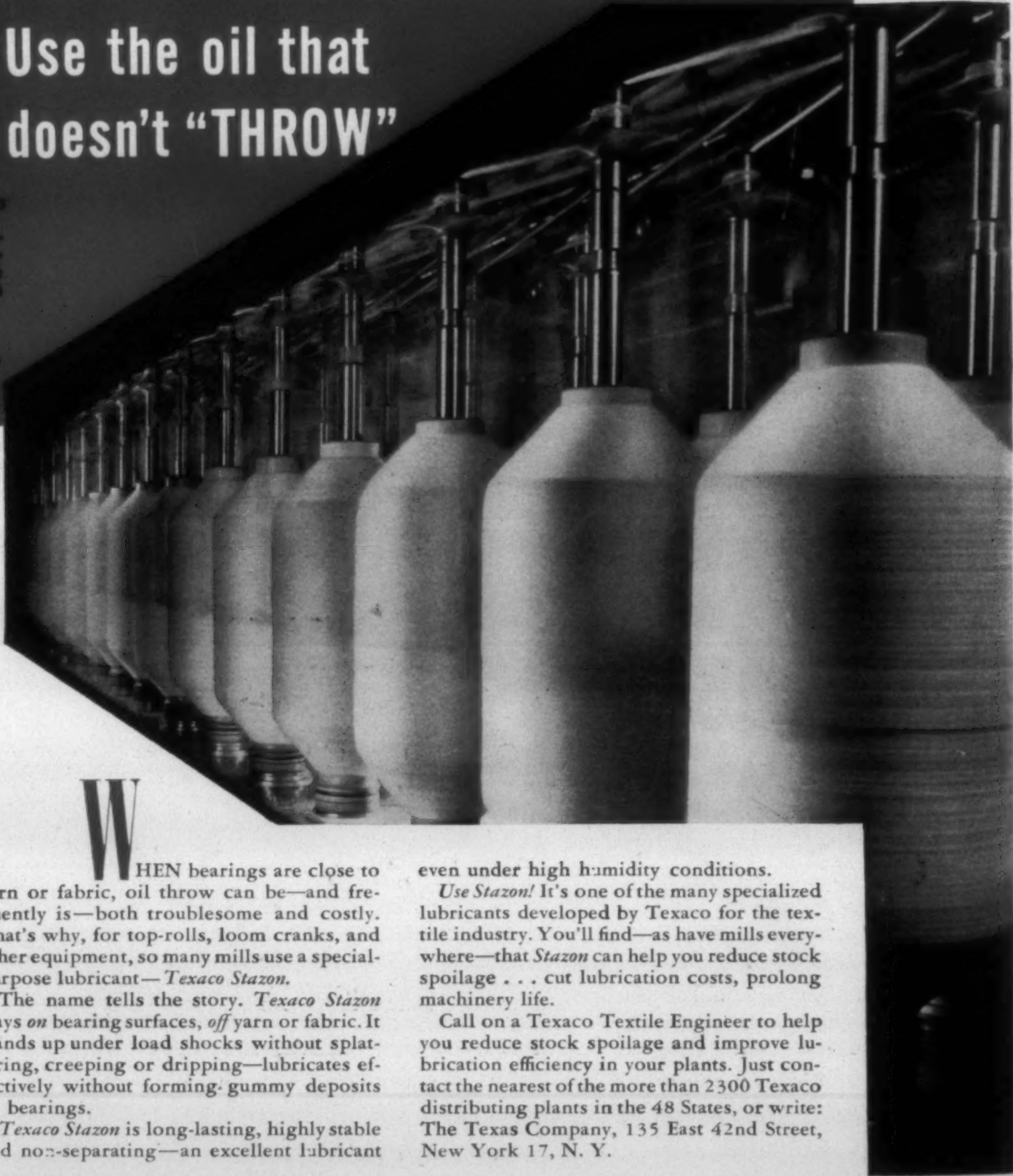

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